

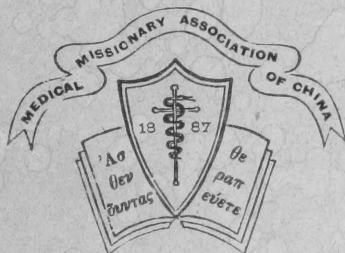
Vol. XV.

OCTOBER, 1901.

The China Medical Missionary Journal.



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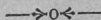
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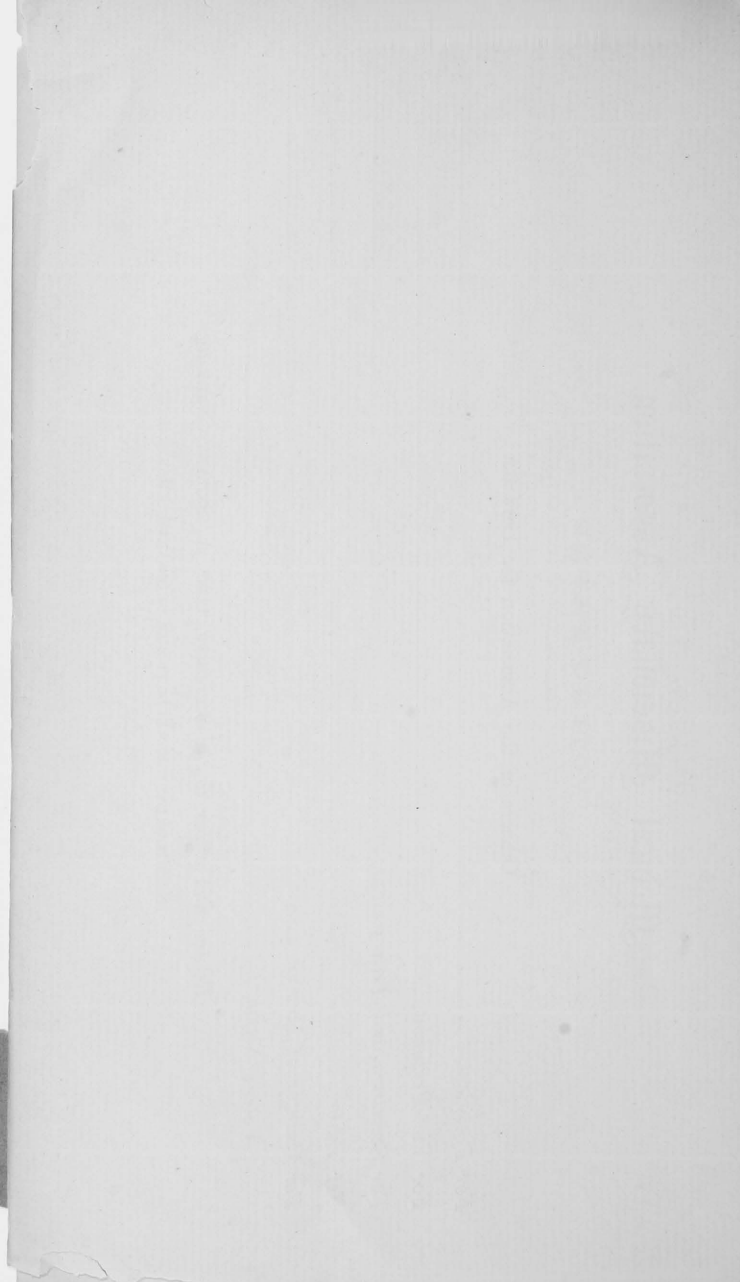
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The China Medical Missionary Journal.

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The Subscription Price for *The China Medical Missionary Journal* is Three Dollars a year. There are to be four numbers in each volume.

We will be obliged to our friends for an early transmission of the subscription money, as we have no reserve funds with which to meet our printers' bills. SUBSCRIPTIONS should be forwarded to the Rev. G. F. Fitch, Presbyterian Mission Press, Shanghai.

Articles intended for *The China Medical Missionary Journal*, should be sent to the Editor, who solicits contributions from all Medical Practitioners in China, Corea, Japan, Siam, or elsewhere.

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No. 4.

Original Communications.

[All papers must be in the hands of the Editor two months before date of publication to insure their appearance in the following number. The editor cannot undertake to return manuscripts which are sent to him. A complimentary edition of a dozen reprints of his article will be furnished each contributor. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

DIFFICULTIES AND DISCOURAGEMENTS OF OBSTETRIC WORK IN CHINA.

By Miss E. GOUGH, M.D.

How carefully we read them, those mighty tomes! How minutely we committed to memory their every detail till we thought we were prepared, at any rate in theory, to meet every kind of emergency and accident! Yet, oh! Playfair, Lusk, Barnes, Leishman and the rest, how *many* possibilities ye have left unprovided for, how many states and conditions ye have not even mentioned in your pages; how ye have *failed us*!

This, or something like it, is, I think, the experience of every one who comes to this country, fresh from the schools and hospitals of the West, full of the latest ideas on asepsis and antiseptis, and crammed with hard and fast theories and rules for observance in midwifery.

One generally finds the first thing to be done, is to throw *theory* to the winds and hope to obtain instead those most earnestly to be desired of all gifts—*adaptability to circumstances, a clear head, and a steady nerve.*

The doctor is called to a case—a fair specimen. The woman has been in labour five days, a primipara, aged twenty-two. Pains ceased two days ago. She is quite unconscious and is half-sitting, propped up by a couple of old women on the bed behind her. During the time preceding the foreign doctor's being called in she has been attended by the grimy old lady, who is introduced as the midwife, and you look despairingly at her filthy hands and ask if she can tell you the "presentation," which she generally can, having been investigating from time to time earlier on in the case. You feel what a splendid chance there is for the patient to escape septicæmia, and with a sigh ask for boiled water to prepare your lotion, ready to do conscientiously what you can. The water comes from some filthy pond, giving off a vile smell and having

bits of weed floating in it. You hope it has been really boiled, pour in your *izal*, *carbolic*, or other antiseptic, and add a prayer that its efficacy may not fail; there certainly seems to be no lack of germs needing to be killed. Then you proceed to get the patient placed in a position to be examined, and on laying her down, find to your horror a large, black, tense mass with a cleft down the middle. This, on closer examination, proves to be the œdematous vulva, and after carefully washing your hands and the patient, you find it impossible to reach the presenting part till the mass has been punctured in five or six places on either side of the vaginal opening and the serous contents let out. Then you examine, find a vertex presentation, head low down, delivery being hindered by contraction at the outlet of the pelvis. With a good deal of difficulty, owing to distortion of the urethra from œdema, you pass a catheter, draw off the urine, give *chloroform*, apply forceps and deliver a dead child. Having removed the placenta, manually, to ascertain if the uterus be ruptured, you swab the uterus out with ointment 1-2 of *izal*, give a douche of 1-100, leave some lotion with directions to keep wool soaked in it applied to the vulva and send a mixture containing *ammonia* and *bark*. All this you do with a kind of grim hopelessness and wonder what will happen. The patient recovers after many weeks with a recto-vaginal and vesico-vaginal fistula, and you from henceforth entertain a wondering respect for the phagocytes of Chinese women. Yet, great as the difficulties in the matter of a sepsis are, and watchful as one has to be over oneself to prevent oneself getting slack and unconscientious in details with regard to it, there are other difficulties even greater than those to be combated. Picture the following:—

Patient, a multipara, second child. Labour lasted four days, patient very exhausted, some œdema of the external parts present. Scene of action, a small boat with mats covering in a portion in the middle; five old women sitting in solemn state, smoking; the patient on the floor. Roof just high enough to admit of kneeling, *almost* upright. Examination reveals a face presentation, an unrotated mento-posterior position, well jammed down. The time of year is June; craniotomy is necessary, perforation is done through the mouth and delivery accomplished with great difficulty, for the child is large and the hard traction necessary tears away large portions of the bones of the head and necessitates several applications of the crainoclast. You perspire, ache, long for air, for water, for a new back; but at last you heave a thankful sigh as the mutilated fœtus is delivered, and when, days after, while still conscious of your arms and back, you hear the woman is going on all right, you feel amply rewarded for your two or three hours' hard tussle, and triumphant because here is a case in which they have carried out your instructions and given the woman a chance by not propping her up directly your back was turned. You begin to feel hopeful about midwifery in China.

But alas! you are not long to be allowed to remain in this happy state of optimism. You are called to another case. Patient several days in labour. Primipara, aged twenty. The usual condition of extreme œdema of the parts; hard traction with forceps resulting in delivery. You leave the patient, after a hypodermic injection of *strychnine*, in much better general condition than that in which you found her, having given instructions that, if she cannot pass urine, or any other untoward circumstance arises, you are to be sent for next morning. You also particularly emphasize the fact that the patient must be kept *lying*. Next day, about midday, comes a breathless messenger to say that the patient cannot breathe. You make enquiries and elicit the confession that she had been propped up in bed "only — 一下 a little bit," when, lo! the present state of affairs set in. You go to see her and find her with all the history and symptoms pointing to pulmonary embolism, and death follows very shortly.

Here is another. Mrs. Lo, aged twenty-one. Primipara. When called, patient had been having eclamptic fits for twenty-four hours and was quite comatose, rigid, and had a very bad pulse. She had old hip disease, and left hip joint was fixed, there being several scars round the joint and considerable lordosis being present. After giving gr. xxx. of *chloral hydrate* by the rectum, and putting the patient under *chloroform*, examined, felt the promontory of the sacrum jutting down very low and the hard, unmoulded head, unfixed, high up above it. By rough calculation the internal conjugate was estimated at $2\frac{1}{2}$ to $2\frac{3}{4}$ inches. The head was perforated and the cranioclast applied; during delivery of the child, patient had two more slight convulsions. The thirty-grain dose of *chloral* was repeated before removing the placenta and again before leaving. A nurse remained to watch during the night, with another gr. xxx. of *chloral* and *chloroform* for inhalation in case of another attack. During the night patient had two more slight fits. By evening next day she was much better; by the morning of the third day she was quite conscious and had had no further attacks. In the afternoon she got angry about something, got up, walked to the door, and dropped down *dead*, presumably from embolism. Such things as these send one's spirit down below zero and make one feel it a very hopeless task to try to save life in these cases, because of the *want of co-operation of friends* of patients.

One cause of obstruction to labour which I have several times encountered out here, but do not find described in text-books, is distension of the abdomen of the fœtus by gases of decomposition. Here is a case in which it occurred as a complication in company with other things of interest:—

Mrs. Seu. M. 10. Eleventh month of pregnancy. Called 7 a.m., labour came on early in the morning of the day before; in the evening of that day, just at dark, a mass appeared at the vulva which looked like blood-clot. The vulva was considerably swollen, and the patient had not passed urine since

the night before. On closer inspection, the mass at the vulva was found to be a macerated head surmounted by a large hematoma, from which the scalp had been rubbed off. The catheter was passed and *chloroform* given. With traction by forceps no advance could be made, neither could a hand be passed up beyond the head to see what the obstruction was due to. I decapitated with scissors and passed my hand up to find the abdomen of the *fœtus* enormously distended, while on pressure quantities of gas escaped through the open end of the *œsophagus*, filling the room with a horrible stench. Having thus reduced the size of the abdomen, an enormous arm was next brought down. Traction on this failing to do anything, the second arm was brought down. Hard traction on both arms brought the body down far enough to just expose the umbilicus, but not an inch further could it be got, neither could a hand be passed up to find out what was wrong. The cord was quite lax, so evidently the trouble was not due to an abnormally short cord. There was nothing to be done but divide the body transversely with the decapitating scissors. The stump was carefully cleared of all spicules of bone, washed and pushed up so as to make room for a hand to be passed up into the uterus. First one foot and then the other was brought down; the stump being "turned" in the process. Traction was made on the legs, first with the hands, fruitlessly, then with cord; two cords broke, and there was no progress. Then with two of us pulling with the hands and one with cords we at last got the buttocks past the vulva.

The *fœtus* was a monstrosity as to size; the by-standers said the buttocks were large enough for a child of two or three years old. They certainly were big enough for a well-developed child of a year old. The whole body was badly macerated. The uterus was swabbed out with pure *izal* and contracted fairly well.* There was an interesting history of progressively larger children. Sent mixture containing *ammonia*, *bark*, and *ergot*. The patient recovered eventually, but she had fever for several weeks; she had little or no discharge throughout, and fetor was very marked, noticeable directly one entered the room. She was troubled with sciatica for some time. This complication I have often seen in China following upon difficult and long cases.

With regard to removal of the placenta, I have learnt some useful lessons which apply only to work out here.

In a large proportion of the cases to which the foreign doctor is called, all uterine contractions have ceased some time; often several days before. This fact may be due merely to exhaustion, or as is often the case, to pressure of a distended bladder (this last holding good especially often in *primiparæ*), or it may be due to giving way of some or all of the muscular coats of the

* There was in this case *very little* loss of blood, though the uterus was at first *very flabby* and slow in contracting. I have never seen a case of post partum hemorrhage in China, a fact probably explained by the system of starvation after labour sets in, which is in vogue in most cases.

uterus, a condition more often present in elderly multiparæ. If the inertia be accompanied with much collapse, complete rupture should be suspected. (It must be remembered, however, that collapse is not a necessary accompaniment of complete rupture.) In any case, I think it wiser not to try to express the placenta in cases where, for any reason, uterine action has been entirely suspended, but always to pass the hand into the uterus to remove it. I have several times found a portion of the wall of the uterus as thin as paper, felt between the two hands, and in a few cases have found complete rupture. These latter cases I always swab out with pure *izal* (none have, so far, consented to come into the hospital for operation), and I know of one, at least, in which the placenta had partially passed out through the opening in the uterus, where recovery eventually took place.

For the same reason, in cases of long standing labour with transverse presentation, where the prolapsed arm is much swollen and no fetal heart sounds can be heard, I think it best to remove the arm at the shoulder with blunt scissors, rather than try to push it back into a uterus which has probably undergone as much strain as it will bear. The child is almost always dead when one is called in. Space will not allow of my doing more than name some of the other conditions one finds sometimes, which lessen the patient's chances, but do not alter treatment. One may find, for instance, the perineum and posterior vaginal wall slit up with scissors with the idea of making room; fortunately the scissors are usually blunt enough to prevent much hemorrhage, and the discharge of feces through the vagina makes the greatest immediate danger. At other times one finds transverse slits. A footling presentation may be found to have been so vigorously dealt with as to leave the head in utero separated from the body (one of the most tiresome things possible to deal with), or a placenta may be left adherent to the partly inverted fundus with the cord pulled off. Once I found a patient sitting up with the child's head delivered; round the neck was attached a piece of rope on which two men were making traction outside the door, uselessly, needless to say, as they were pulling quite out of the axis of the pelvis.

This case was easily finished with my fingers when the patient was laid down, but she got a urinary fistula as the result of what she had undergone. These are some of the difficulties one has to encounter in a class of cases which give one great opportunities not only of exercising one's medical skill and realising the immense *privilege* of being able to render assistance, but which also give one large opportunities in the direction of evangelistic work.

Personally, I feel it right to forbid the beating of gongs, chanting of priests and firing of crackers while I am at work, telling the friends briefly in whom is our trust and to whom we look for help. When all is over, an opportunity is generally given to tell to an attentively listening crowd more fully of the great Physician's power and love.

The methods of treatment for various conditions given in this paper will not, I am aware, meet with the approval of everyone here, but I believe that in this work, perhaps more especially than in any other, absolute confidence in one's own methods, once one has worked them out with the aid of experience, is the important step towards success.

Wesleyan Missionary Society, Hankow.

TWENTY YEARS' EXPERIENCE IN THE TRAINING AND EMPLOYMENT OF MEDICAL STUDENTS.

By B. VANSOMEREN TAYLOR, M.B., C.M.

Before leaving for China special stress had been laid upon the fact that my first year or more had to be given up to uninterrupted study of the language, but on my arrival here I found that my clerical colleagues were not of the same opinion, for it was their wish that I should at once open a dispensary and begin medical work.

The clerical missionary with whom I was residing was quite willing to help me in the work at the start, but I soon found that his duties were more than he could overtake, so that I could not rely on him, and I soon found out that the only help I could get would be from a young Chinaman who had been appointed as a helper, who knew nothing either of English nor of medicine. I soon discovered also that having once begun medical work it grew upon my hands and that it was more than I could overtake and also that my time for study was much broken into.

So it occurred to me that my time would be profitably spent in teaching and training a few young men, who afterwards might be made use of by the mission as medical catechists.

I had hoped that my clerical colleagues would have seen their way to advise and assist me in this, but I was very disappointed to find out that my plan was met not merely with no good will but with direct opposition. The reasons urged against it were somewhat as under:—

“You have been sent out to do mission work, not to train medical students.”

To this my reply was, “Surely this is mission work. Do you not have boys' schools, girls' schools, colleges, and do you not regard education as a very important part of mission work?”

“Oh! Yes,” was the reply, “but it is not quite the same. We teach the Bible and train men to be catechists.”

To this I replied, “Do you not teach them a great deal more than the Bible? Don't you teach them to read Chinese classics; which are heathen books, not to mention a certain amount of foreign knowledge and science, e.g., geography and arithmetic?”

To this the clerical reply was, "Yes, but you know that this is necessary. Unless they read Chinese classics they will not be fit workers, and the science develops and opens up their minds."

To this I replied, "Exactly, and will not the knowledge of medicine enable them to become fit workers for Christ and develop their minds? In teaching them medicine we are but teaching them certain facts with reference to God's kingdom, certain of God's laws, and the result of breaking those laws, and our endeavour to remedy those results. You teach them geography, the knowledge of the earth made by God. I teach them anatomy, the knowledge of the body made by God. You teach them that two and two make four. I teach them that the result of a good dose of *quinine* in ague relieves them of fever and a good deal of misery. Moreover, what we want are Christian workers, men who will not merely preach Christ, but live like Christ; men who will not merely teach what God's will is, but will do God's will amongst this people, for does not Christianity consist in something more than answering certain questions satisfactorily with reference to Christian doctrine? Does it not consist in following the example of Christ in doing the will of the Father and in acting out the principles He has laid down for our guidance? Has not Christ told us that when the Son of Man shall come in His glory, the King shall say unto them on His right hand, 'Come ye blessed, inherit the kingdom prepared for you, for I was an hungred, and ye gave me meat; I was thirsty, and ye gave me drink; I was a stranger, and ye took me in; naked and ye clothed me; I was sick, and ye visited me.' Surely the training of students is not merely mission work but a very desirable form of mission work, for have we not placed with us, for a certain number of years, young men of such an age that we can somewhat influence their lives and train their character? That we have daily opportunity of watching their lives, correcting their mistakes, helping them in their attempts after all that is true and noble, just and right, of daily bringing them into contact with God's Word and the teaching of Christ, and that too in the exercise of a profession which we believe to bring into action the Christian graces of self-denial, sympathy, and love."

"Yes," replies the clerical, "that is all very well in theory, but in practice you will find it very different. The whole question is beset with difficulties." To begin with, "Where are you going to get your men from? If you take on heathen men you will find that they will do more harm than good."

I reply, "It is not my intention to take on heathen men, though even something might be said for them, for are not heathen admitted into the high schools or colleges in the hope that whilst there they may be influenced by contact with Christians and Christian teaching? but I admit the risk at

present is too great. I hope to get boys who have finished their training in the boarding-school to come on as students. I hear of several who are willing to come, are anxious to come."

"Oh," replies the clerical, "that is out of the question; we need all the boys that we have got to pass into our college to be trained as catechists. Of course some want to go because they know that a Chinese doctor, as a rule, becomes a wealthy man, and that is what makes them offer."

To this I reply, "I am sorry to hear you say that. If boys are willing to study medicine why should they not be allowed to do so? Why put pressure on them to become catechists? Might it not be left to their own choice? Why is it that the men's motive is pure in wanting to become a catechist and not so when he wants to become a medical student? May not the motive be the same in both cases? Are you quite sure that a theological student is not with you for the sake of gain?"

"Quite so," is the clerical reply, "but the theological student has not quite the same temptations as a medical. A medical will be tempted to steal your medicines, to squeeze your patients, and after he has got a little knowledge leave you in the lurch and set up for himself, and probably make a fortune selling those horrid *morphia* pills."

"I admit all this," I reply, "but if we abandon work because of the difficulties connected with it and the temptations which surround it, we shall have to give up Christian work altogether. Christ was not exempt from temptation. I had hoped that you would have given me some help and advice in suggesting how these temptations might be overcome or prevented, but to recognize them is to be on one's guard. But let me ask, Do not similar temptations beset catechists? e.g., Do not they often augment their income by some private work of their own? Have you never heard of a catechist receiving a good sum for settling some law case, and have you not heard of catechists selling what you call those horrid opium pills and defending their action in doing so on the ground that they are trying to cure opium eaters in order that when cured they may become church members? Have not some of our catechists, too, left the mission, and would not others go too if they could get a higher salary elsewhere? Yet you don't advocate closing your theological colleges. Besides do you really require all the boys who leave the school to be catechists? I don't want many, say six, to begin with."

"Well," replies the clerical, "we might let you have a few boys who are not fitted to be catechists."

"Thank you," is my reply, "they are just the boys I do not want."

"Do you intend," asks the clerical, "to pay the students while learning?"

"Yes," is my reply, "I wish we could do without paying them, but you know the old saying, 'a bird in the hand is worth two in the bush.' Do you

think that a boy would be willing to come to me for nothing when you are ready to pay him \$3 or more a month? Besides I think that there are reasons for paying him. You have pointed out several of the temptations to which he would be exposed, viz., stealing the medicines, squeezing the patients, and leaving us before he is properly trained; now why would he do this? Is it not because he wants money to support himself? If we give them support the power of the temptation would be lessened, if not quite removed. Then I think there is a reason why we should do so, viz., we hope to get these students to help us in the work; they will do work, and it is only right that they should be paid whilst they work. At the same time I shall rejoice when the time comes when it will not be necessary to pay them. But I am afraid that it will not come before you cease to pay theological students whilst in training, and until we get a richer class of Christians than we have at present."

"Well," is the reply, "we will see what we can do."

More than twenty years have passed, and I would like now to give my experience. I started off with two well-recognized ideas:

First. To train workers for Christ, not necessarily to be paid by the mission after they had been trained.

Secondly. To be sure that the men were willing to be workers for Christ. How many never had any influence with me. Sooner have no men than bad men.

At the beginning I found great unwillingness to allow good boys from the boys' school to come to me. I therefore found great difficulty in getting suitable boys. This, I am glad to say, has changed. I seldom had more than four, if that number, after the first six months.

My experience of boys who have not been trained in the boys' school or some similar institution, has not been satisfactory. I gave every new-comer to understand that for the first year he was simply on trial, that at the end of six months I would let him know whether he could stay or not till the end of the year, and several had to go at that time, because I considered them unfit—not that they wanted to go.

At one time it was thought that the time had come when we could take on boys without paying them, but experience showed that we were wrong. Dr. Rigg, of our Mission, was unable to get any, and though I got some they were most unsatisfactory, and it was during the time that they were on trial I had my first experience of medicines being stolen from the dispensary. An inroad was made upon the boxes of the students and the missing medicines were discovered and the boy dismissed. However we found out that he was not the only one, for one or two bottles again disappeared, but this stopped soon after another student was dismissed for cheating in his examination.

The numbers who have been trained have been few, but with one exception have proved reliable and satisfactory workers. I left my work in their hands when I went home for furlough, and they carried it on in a satisfactory manner.

They are looked up to, and respected by, the Christians and fellow-workers, both European and native, and are holding responsible positions at present. They have shown themselves willing to face danger and persecution, and by their consistent life have put down opposition. Even the one exception is a leading man amongst the Christians of his city.

One I may say dropped his medical work, though not mission work, but is now an ordained clergyman of the church, though he was never at the theological college. Others are not in mission employ, but are still Christians and are doing work for Christ.

I think I might sum up by saying, that I consider the training of medical students to be a satisfactory form of mission work, but it needs to be carefully guarded by thorough sifting at the very beginning and only those employed who have proved themselves worthy after careful testing.

Church Missionary Society, Hing-hwa, Foochow.

MULTILOCULAR CYST OF THE LOWER JAW.

By J. A. OTTE, M.D.

The patient was a well-nourished lad, appearing older than he really was. I would have taken him to be at least twenty-two, whereas he was only sixteen. He had a hard bony tumor involving the greater portion of the inferior maxilla, viz., the lower part of the right ramus and the whole of the body on both sides up to the insertion of the second molar on the left side. The teeth were in perfect position, and were all present, except the second bicuspid on the right side, which was wanting. The growth of the tumor was downward, backward, and inward. After removal it was found to be four inches in diameter from right to left and two inches in diameter through the symphysis, two and a half inches from above downwards. On the right side of the face was a sinus extending down to the bone, the result of an effort to remove the tumor with caustics. The history was indefinite, but the patient said the tumor had been growing for about two years. There had been no pain, but articulation was becoming indistinct and swallowing difficult. There was no evidence whatever of the tumor being cystic. Indeed, after removal it was found that except for numerous small cysts, the size of a pin-head to that of a bean, the whole of the enlarged *alveolar* process was practically solid, while the rest of the bone was cystic.

On January 2nd the writer and Dr. C. Johnson removed the tumor. Tracheotomy, below the isthmus of the thyroid, was attempted. As this organ extended almost down to a level with the top of the sternum it became necessary to cut through the cricoid cartilage. This part of the operation was very tedious and annoying. Three small sponges were then pushed down into the larynx and the diseased bone removed by disarticulating the right side and sawing between the second and last molar on the left side. It was only while dissecting off the tissues on the inner side of the tumor near the attachments of the tongue that the cystic nature of the tumor became apparent. Here one of the large cysts was covered only by periosteum, the bone having been absorbed, leaving about half an inch of the bony cyst simply covered by periosteum. The outer surface was exceedingly vascular, causing much delay. On the third day after the operation the tracheotomy tube was removed. A silk thread was passed through the tip of the tongue at the time of the operation. It was only by pulling the tongue forward by means of the silk thread that the patient was able to swallow for about a week after the operation. The main portion of the wound healed by primary union. The exception was where the sinus in the cheeks had been cut out. This healed by granulation. The temperature was normal until the morning of the third day, when it rose to 100. After this until the ninth day it ranged between 98.2 and 101.2. On the evening of the first day the pulse was 140 and small. It gradually improved in character until on the ninth day, when it was ninety-two, where it remained until the patient was discharged.

By January 29th the patient was practically well, but still very weak. Articulation was very indistinct.

On February 8th there was a swelling on the left side extending from just above the mastoid process down to the middle of the sternocleido-mastoid muscle. It was feared this might be a recurrence, but it proved to be only an abscess, which, after opening, slowly healed. This abscess kept the patient in the hospital until March 5th, when he was finally discharged.

After removal, the tumor was sawn through near the symphysis. In the section fifteen large and small cysts were seen, the largest the size of a dove's egg. These did not communicate with each other. Besides this, by cutting through the bony portions, numerous other cysts were found. In order to preserve the specimen, further section was not made, hence many of the smaller cysts were probably not discovered. These cysts contained a glairy brownish fluid. In some cases the walls were smooth, and in other cases lined with interlacing trabeculae. The sinus in the face led into one of the cysts which was suppurating. I have been able to find but little on the subject of multilocular cysts of the lower jaw in the books available.

PROCTITIS FROM CHILL.

By EDWARD F. WILLS, M.B., C.M.

This complaint is not described clearly in any surgical text-books, but I believe it is a fairly common one in warm countries such as China. A case came under my notice last summer, and is a reliable one as far as the symptoms go, because the patient was a medical man and was also under treatment all through. In August during the hottest of the summer in Hankow the patient had been constipated for three days; he also had been in the habit of washing the perineal region daily for a small patch of tinea. The three days' constipation ended by the passing of a very large motion of formed feces. This, owing to the stretching of the sphincter, caused a sense of pain about the anus for a little time; from this time onward and for several days he complained of lumbago, a pain in the small of the back, which he felt when he had to rise from a chair; bowels were now regular, but the washing of the perineum was continued as before. By degrees the lumbago got worse, and finally he had to take to bed. In bed he could not turn without intense suffering and had to take his meals lying in the horizontal position; to get up he had to rigidly fix the body and use the arms to push himself on to the side and gradually get up without unbending; all this time his appetite was good, bowels were regular, no temperature, and the only symptom was the excruciating pain in the back. An examination was made of the rectum; the mucous membrane of the anus was velvety to the feel and the finger entered very easily, the sphincter felt as if it were overlaid with some gelatine composition; no throbbing veins could be felt, and all rugosities felt as if they had been overlaid with this composition. The motions were passed without pain, and to the patient they seemed as if the exit had been facilitated by the anus having been anointed with *vaseline*, he did not strain, but had to make a conscious effort to restrain himself from straining, feeling as if the bowel might prolapse; the feces had traces of glairy mucus, but no traces of blood. The patient staid in bed for about a week, during which time he was on ordinary diet and took no medicines. Gradually he was able to get up, but the only two positions which were free from pain were standing upright and walking, or lying flat on a couch. It was quite a month before the pain passed away, and after that it would recur after a long walk; the walk would be free from pain, but next day he would be bad. He has had no recurrence of the symptoms since. Another medical man complained to me of lumbago during November of last year, and he was considerably surprised when I hinted that he had been exposing himself to chill by washing the perineum. I have also seen many Chinese patients who complained of this pain in the back when they rise

from the attitude they take at stool, and some say that the pain is intense ; probably their trouble arises from the cold draughts, which are an essential part of Chinese water closet arrangements. These cases are all, I think, inflammation of the mucous membrane of the lowest part of the rectum, due in the first case to fecal accumulations as the predisposing cause and to chill (in the first case it was from the bathing) as the exciting cause. The treatment nature seems to demand is rigidity of the back, which gives rest to the rectum. The only drug that was thought of at the time was *ung. conii*, to relieve pain, but it was unavailable ; perhaps some mild astringent such as *zinc sulph. lotion* might have hastened matters, but the risks of chill and constipation in the heat of a tropic summer decided against their use.

I don't think this trouble can be too lightly regarded, as in hot weather, with so many sources of infection about, and often the low health of the patient or his liability to the same, one could easily imagine a very violent and even fatal inflammation being set up. One rule added to my stock from this case was : always examine the rectum in lumbago, and for treatment I think bed should be insisted on.

London Mission, Tsao-shih.

ON THE TREATMENT OF ULCERS BY SKIN GRAFTING.

By J. PRESTON MAXWELL, M.B., B.S., F.R.C.S.

It is now some years since I first became acquainted with the value of this form of treatment in the healing of ulcers. My first case of skin grafting will always remain impressed upon my memory. It was that of a young girl of eighteen, who had burnt herself most severely and had destroyed the whole thickness of the skin over the whole of the upper arm down to one a half inches above the bend of the elbow ; the destruction of the skin having also involved an area about the size of the palm of one's hand, both over the pectoralis major and also over the scapula ; altogether as bad a burn as I ever wish to see. As soon as the surface was in a healing condition, I grafted it in two stages by Thiersch's method, doing one-half on each occasion and transferring the skin directly from the thigh to the ulcer in the manner hereafter to be described. Most of the grafts took, and in six weeks she left the hospital healed and without any contracture. I saw her at intervals during the next two years, and the arm remained perfectly sound, there being no sign of the contracture which I had feared.

Since that time I have done the operation many times, but I have taken it up more extensively in view of the large number of ulcers that come under one's hands in a mission hospital in the East.

FIRST AS TO THE CASES SUITABLE FOR THIS TREATMENT.

The ideal case is that of a large, clean, healthy ulcer, high up in the leg in an individual who is otherwise strong and well. But this latter desideratum is not always to be obtained, and so one has to consider the matter more in detail.

Malarial cachexia and malarial enlargement of the spleen are not barriers, unless they are severe. Beware of doing any operation on a bad malarial cachetic.

Of course active malarial fever should not be present, though I may at once state that a sharp malarial attack, in the course of convalescence, if taken in hand at once, does not interfere with the healing by first intention of an operation wound or the taking of Thiersch grafts. I have seen this many times. In one of the most successful cases of skin grafting I have ever had, the patient, a girl of twenty, with a malarial spleen, had a sharp attack of malarial fever on the third day after the operation. Her ulcer, however, which was of three years' standing and about two inches by one and a half inches, healed completely in ten days, every graft taking in its entirety.

Syphilis is not an absolute barrier, but I generally refuse to graft a gummatous ulcer, firstly because under medicinal treatment these almost invariably heal up, in time; and secondly, because a gummatous condition may be set up in the situation from which the grafts are taken. Of course this objection does not apply if skin can be obtained from another individual.

Tubercular ulcers with large, pale, flabby granulations do badly. In a patient of this kind it is better to obtain skin elsewhere, and very often the result ends in failure.

Necrosis in the area to be grafted is an absolute barrier to perfect success. A few of the grafts may take, but owing to the impossibility of disinfecting the ulcer, as often as not all the grafts die.

There is another absolute barrier, and that is active ulceration at the edge of the ulcer. In a case of cellulitis, which has resulted in sloughing of the skin, it is waste of time to try to do skin grafting until the ulcer is a settled entity, without a single pocket.

It is hardly necessary to point out that the nearer the trunk, the greater is the chance of success, and also that an ulcer on the arm is more likely to prove a successful case for grafting than one on the leg.

TO TURN TO THE METHODS AT ONE'S DISPOSAL.

They are as follows:—

- (a). Cuticle grafting.
- (b). Grafting with animal's skin.
- (c). Reverdin's method.
- (d). Thiersch's method.

(a). CUTICLE GRAFTING.

This may be appropriately considered first. It consists of raising a blister on previously cleansed skin and transferring the cuticle to an ulcer which has been prepared for it, and dressing the part carefully, the dressing keeping the cuticle in position and exerting some little pressure on the part. I do not enter into details of this method, as in my hands it has proved almost uniformly unsuccessful—in this respect a great contrast to the results I have obtained from Thiersch's method. I am quite aware that some claim to have had very good success with this method, but that is not my own experience.

(b). GRAFTING WITH ANIMAL'S SKIN.

I have not fully finished experimenting in this direction, so cannot speak positively. On one occasion I used skin from a new born rabbit, and the result was a complete failure. On three occasions I have used skin from young frogs. In one of these cases the skin took for a time, and then as it were melted away, and in all the cases, healing of the ulcer was greatly expedited. I hope in due time to make further experiments in this direction.

(c). REVERDIN'S METHOD.

This consists of snipping off small pieces of skin with the aid of a special pair of scissors, which grasps and lifts the skin, which is cut away. These small islands are sown, so to speak, over the ulcer, and may materially hasten the healing. But as this method takes almost as long and is not one-half as effective as Thiersch's method, I have abandoned it entirely in favour of the latter.

(d). THIERSCH'S METHOD.

This is the method I now almost invariably employ, and I may at once state that it is a method which depends for its success on the careful observance of detail. To be careless is to court failure, and possibly to leave your patient in a worse condition than before. But with due care there is no fear of such an untoward result. Let me describe:—

- (1). The general idea of the operation.
- (2). The preparation of the ulcer.
- (3). The preparation of the area to be drawn upon.
- (4). The technique of the operation.
- (5). The after treatment.

(1). *The general idea of the operation* is as follows: To remove from a healthy area a shaving of skin as thin as possible and going just below the summit of the papillæ.

To transfer this shaving with as little handling as possible to an ulcer, which has been denuded of its granulation tissue until a firm base has been reached, and in which all bleeding has been arrested by pressure before the application of the grafts.

To dress the ulcer in such a way that the grafts are retained in position and at the same time serum is allowed to drain away, while slight pressure on the surface of the ulcer and warmth are maintained during the time that the grafts are forming vital connections with the bed of the ulcer.

(2). *The preparation of the ulcer.*—The ulcer, which is supposed to be healing, is thoroughly cleansed and the skin around it scrubbed with soap and water and deprived of fat by the use of turpentine. Fomentations of *perchloride* or *biniodide of mercury* 1.4000, or *carbolic acid* 1.60 are then applied for at least twenty-four hours before the performance of the operation.

(3). *The area to be drawn upon* is usually the extensor aspect of the thigh. This should be thoroughly cleansed in its whole circumference with soap and water, rubbed with turpentine to remove the fat, washed with *biniodide of mercury lotion* 1.500 in 60 per cent. alcohol; this strong solution washed off with 1.4000 *biniodide solution* and a gauze dressing soaked in 1.4000 *bionidide lotion* wrung out, applied and covered with gutta-percha tissue. This should be done at least twelve hours before the time of operation.

(4). *The technique of the operation.*—*Chloroform* must be given. The operation is intensely painful and cannot be done without an anesthetic. As soon as the patient is well under, the ulcer is scraped with a Volkmann's spoon, removing all the granulation tissue and the hard edge and leaving a bare smooth base. An assistant should then make firm pressure on the ulcer with wool swabs, wrung out of hot *boracic lotion*, in order to arrest all bleeding.

From the area on the thigh which has been selected, large grafts, conjointly equal in extent to the area to be grafted, are rapidly cut and transferred to normal saline solution kept at body heat. By this method it is unnecessary to keep the patient under *chloroform* for more than a few minutes, as the adjusting of the grafts, and dressing of the wound, can be readily done without *chloroform*, as the process is practically painless. Formerly I used to transfer the grafts directly from the thigh to the ulcer. There are two objections to this method: first that the thigh wound may become contaminated from the ulcer. As to this I have never known it to happen, and providing reasonable care be taken I regard this objection as not worth considering.

Secondly, and this objection weighs largely with me; whereas with a large ulcer my patients used to remain under *chloroform* for from half an hour to one hour; now the time is reduced to a few minutes.

As to the cutting of the grafts. It is well to use a special knife. A razor will do, but it is extremely difficult to cut the grafts thin and large. My own knife weighs nine ounces, is nine inches long—handle four and a half inches and blade four and a half inches. The blade is three quarters inch broad and is not wider than the handle. The majority of grafting knives are made with the blade nearly twice as broad as the handle, a pattern which is more difficult, in my experience, to use deftly. The handle and blade should be forged in one piece and it should be kept very sharp.

The only other instruments needed are a Volkmann's spoon, or a curette, a fine probe, and a pair of forceps to help in spreading out the grafts. In the actual cutting of the latter from the thigh, the left hand of the operator grasps the back and sides of the limb and renders the skin to be cut tense and steady. With a sawing motion the operator removes grafts of the required size and shape, cutting them as described before and keeping knife and limb wet with the lotion (*saline solution*). One to two inches long and about half an inch wide is about the size. Some have supposed that many tiny grafts take better than several large ones. In my experience if the large grafts are cut of proper thinness, they take quite as readily as the small ones, and the saving of time is a great consideration.

The surface from which the grafts have been taken is washed with *boracic lotion*, dried and dressed with *zinc ointment* on lint. It need not then be touched for several days, and the scar that is left is of no importance and gradually disappears. The operator need not be alarmed if the patient complains of great pain in this situation the day after the operation. The nerve endings have been bared and may give considerable pain. But this will gradually pass away if left alone.

After all bleeding has ceased, the grafts are taken from the saline and placed in position, under surface towards the ulcer bed. There is no difficulty in telling the under surface, as the appearance is smooth and the grafts tend to curl under.

After they are placed in position they must be gently pressed, using pledgets of wool, wrung out of hot *boracic lotion*, in order to displace any blood, air, or lotion which may have got underneath the grafts.

It is essential that the surface of the graft should rest directly on the ulcer base. The grafts should just touch and should come just up to the edge of the ulcer, which they should not overlap. The grafts should be held in position by strips of silk prepared with isinglass (Seabury and Johnson), or strips of perforated gutta-percha tissue. The essential is to fix the grafts in position with some material which can easily be removed. Over this a dressing of antiseptic wool should be placed and the limb bandaged from the extremity, using moderate and even pressure.

(5). *After treatment.*—The patient must not be allowed to walk about and the limb should be slightly elevated. In cold weather it is advisable to wrap the limb in cotton wool, or apply a hot water bottle or bag to the part. I make a rule of opening all on the fourth or fifth day. If I am afraid of septic infection I open on the third day, but this is rare. In any case great care must be taken not to disturb the grafts which have adhered, and no strong lotion should be applied. The part should be redressed precisely as at the operation and left undisturbed for another couple of days. These dressings may then be removed and an ordinary dressing of *zinc ointment* spread on lint applied, the patient being allowed to get up and walk about, but abstaining from any exertion.

As to the results, in many cases they are brilliant successes, in some moderate successes, and in some complete failures. Some of these last can be easily seen to be due to a failure in the antiseptic method or to some other obvious cause.

The food of the patient during convalescence should be sharply looked after. I have known three quarters of the grafts of a child, who was nearly healed, die and ulcerate away, and as far as one could judge, the determining general factor was poor food.

In most of the cases which were a failure, as far as the life of the grafts was concerned, the operation was by no means unsuccessful; as although the grafts died, their presence seemed to have a stimulating effect on the ulcer, which spontaneously began to heal rapidly.

I am quite aware that some of the cases afterwards break down again, but the majority certainly do not, and the operation surely gives them a better chance, as the contraction which ensues, is by no means great, and the tissue of which the scar is composed is endued with much greater vitality. In some cases, such as the ulcer, which unavoidably follows a large excision of skin, as in the case of an ulcerating carcinoma, it is unnecessary to remove the granulations, and the grafts may be applied on the surface of the granulation tissue.

Finally there is one method of skin grafting which deserves note. The skin removed in an entropion operation may be directly applied to a healing ulcer and in some cases will take in its entirety. But here again the results are very uncertain and disappointing.

I have now performed Thiersch's grafting fifty times. Appended is a list of twenty-one consecutive cases to give some idea of the scope and success of the operation.

TABLE OF ILLUSTRATIVE CASES FROM THE WRITER'S PRACTICE AT CHANG-POO.

N.B.—These cases are a consecutive series, none being omitted for secondary reasons. The word within brackets in the last column indicates the number of grafts that took and the capital indicates the sex of the patient.

NO.	NAME.	AGE.	DURATION.	SIZE OF ULCER.	SITUATION.	SOURCE OF GRAFTS.	RESULT.	TIME FROM OPERATION TO HEALING OF ULCER.
1	K.	39	3 years.	2 × 1½ in.	Shin.	Opposite thigh.	Soundly healed.	19 days (all). M.
2	B.	22	1 year.	2 × 1 in.	Between malleoli.	"	"	10 days (all). F.
3	C.	55	"	4 × 1½ in.	Lower portion of calf.	"	"	18 days (all). M.
4	S.	25	6 mons.	1 × 1½ in.	Shin.	Another patient.	Healed.	21 days (half). M.
5	L.	14	1 month.	All the dorsum of the foot.		Opposite thigh.	"	* 45 days (a third). F.
6	C.	26	2 years.	Small.	Middle of leg.	Another patient.	"	14 days (all). M.
7	T.	45	2½ years.	1 × 2 in.	Calf.	Opposite thigh.	Not healed.	One graft took. M.
8	B.	36	3 years.	4 × 2 in.	Shin.	"	¾ healed.	16 days (two-thirds). M.
9	N.	34	6 "	3 × 2 in.	"	"	(Upper half grafted) healed.	15 days (all). M.
10	N.	34	"	3 × 2 in.	"	"	(Lower half grafted) not healed.	Grafts failed. M.
11	K.	25	1 year.	1 × 1½ in.	Dorsum of foot.	Another patient.	Healed.	1 month (grafts died). M.
12	J.	46	1½ years.	1½ × ½ in.	Dorsum of foot and ankle.	Opposite thigh.	"	25 days (two-thirds). M.
13	T.	25	1 year.	1 × 1½ in.	Shin.	"	Not healed.	All grafts died owing to infection with staphylococcus aureus. M.
14	K.	28	"	2 × 1½ in.	"	"	Healed.	1 month (a third). M.
15	A.	38	1½ years.	1 × 1½ in.	Dorsum of foot.	"	Not healed.	All grafts died owing to infection of wound. M.
16	L.	22	4 "	Small.	Shin.	"	"	Grafts died, ulcer base little vitality. M.
17	H.	29	6 mons.	4 × 3 in.	Outer part of thigh. †	"	Soundly healed.	20 days. (three quarters). M.
18	C.	33	3 years.	4 × 2½ in.	Leg.	"	Ulcer size of six-pence left.	14 days (a third). M.
19	S.	24	1½ years.	2 × ¾ in.	Foot.	"	Disch. himself. Soundly healed.	26 days (all). M.
20	I.	22	1 year.	Small.	Leg.	"	Not healed.	Grafts failed. M.
21	K.	40	3 weeks.	4 × 3 in.	Breast. ‡	(From patient No. 20.)	Healing rapidly.	10 days (all). F.

* In this case, which was following acute cellulitis, I did not wait long enough to get rid of all pockets.

† Due to a burn from kerosene.

‡ The case was one of ulcerating scirrhus in which I removed widely the breast and axillary glands, making it impossible to close the large wound. Thiersch grafting at the end of three weeks. Patient had to go home (with the ulcer healing), owing to family reasons.

THE MEDICAL SCHOOL.

By ROBERT C. BEEBE, M.D.

In the July number of the JOURNAL two projects for medical education are advanced, and as the subject is timely and important, it is to be hoped that further discussion will be elicited.

That the question is an important one is made evident to every medical missionary at the beginning of his career in China, as one of the first questions that confronts him is where will he find trained assistants. The answer in a large majority of cases is the answer of necessity, "Train your own assistants." So far in the work in China very few hospitals have any good men to spare, and while there are usually several inferior and questionable hospital assistants waiting for a position all medical work is better off without them.

The whole question is a difficult one to solve satisfactorily. The medical missionary has more work crowding in on him than he can attend to. He must meet, and in some way dispose of, problems in all the departments of medicine and surgery, and these come in continually, regardless of time or the doctor's convenience.

Then he is a *missionary* as well as a doctor, and the spiritual aspects of his work must be considered. He is in charge of a *mission* hospital, and while the evangelistic phase of the work may be in some cases under the care of a clerical missionary, still the doctor must arrange the work to conserve that phase of it, give some of his time to it, and see that his assistants are a part of it.

I presume that in many cases the history of a hospital assistant is something like this: The mission school furnishes the hospital with one or more young men or boys, who commence to assist in the work as soon as possible; at first simply multiplying the doctor's hands and feet. They are given books to study and gradually know more and do more in the work, their ultimate efficiency and success depending upon the time and care the doctor is able to give them, the character of the boys themselves, and the time they spend as assistants in the hospital. In some cases this results in the training of very valuable men, those who make efficient doctors and good mission helpers; in other cases failures, that are all the more disheartening because of the time and self-sacrifice given by the doctor to their training. Every medical missionary therefore must be interested in any attempt to work out a scheme for medical education in China.

The proposition which emanates from Shanghai states in its first paragraph that the effect of the proposed school shall be to give a thorough training to mission hospital assistants and to all who wish to practice medicine in

China, provided they are of a good moral character. That is, it is proposed to start a medical college with a full faculty and give a thorough course of instruction.

If a medical college is opened to the patronage of China certainly there should be a good, strong faculty, and a thorough course secured. We cannot ask men to spend their time and money simply to further our ideals. There must be a *quid pro quo*. I believe the time is not far distant when the Chinese government will establish a system of medical education. They are a people that give education the first place, and every student among them looks longingly on the practice of medicine, while every other person takes to physic as a duck takes to water. Dark as the day may seem, a new *régime* is surely coming for China, and among the old things that will pass away, the present system of inherited quackery will be one of the first to go. The government will undoubtedly pursue their present course in the schools already established and have the large part of instruction given in English or some other European language. If they think it necessary to use a European language in their naval and military college, scientific schools, and modern colleges of high grade, the teaching of medicine will be done in the same way. The coming doctor must have something more than the Chinese language will ever give him. The Chinese language will go a long way and serve a large part in his education, but it is inadequate and probably ever will be inadequate to make a first class medical man and enable him to keep in first class condition professionally.

If a first class college is started it involves the expenditure of more money than medical missionaries can contribute, or can be derived from tuition fees, or than missionary societies would be likely to appropriate to secular work outside their control. If special gifts from benevolent persons are secured there must be an organization of more permanence and responsibility than a committee of the Medical Missionary Association, to hold property and administer trust funds.

I am of the opinion that the Shanghai scheme is fatally lacking in several essential and practical features that make it impossible at the present time.

Now in regard to the Hankow proposal. This is practically the same plan as proposed several years ago in an article published in the JOURNAL (see December number, 1895).

Excepting some details of the plan as now proposed, I think it is more practical than the Shanghai proposal, and, while it is not ideal and is far from all we would wish, yet it is a plan that can be put into effect, and later lead to better things.

In regard to some details of the Hankow proposal I do not think that physics, botany, and zoology should be included in the medical course. These studies belong to an academic course and should be taken before a

professional course is commenced. An applicant for examination should present a certificate of graduation from a school of high grade, or pass a preliminary examination to make him eligible to take his examinations in a professional course.

I think article four needs alteration. I would make the time required five years instead of six. A graduate in an academic course should be able to do the course in that time. And why put in the requirement of twelve successful vaccinations? It seems a strange thing to specify such a simple and common procedure. Why not as well require the candidate to present evidence of having successfully pulled twelve teeth and given twelve enemas?

Then I do not think a student's time in the hospital should be so divided as to give six months to compounding drugs, nine months exclusively to surgical dressing, and—what is meant by nine months' "medical clerking" I am at a loss to know.

He should have all and more than the above mentioned time for compounding drugs, surgical dressing, care of patients as an interne, minor surgery, etc., but I would not allot the time as given.

The plan for examinations does not interfere with any plan for a general medical school, or with any schools already started, and should be a stimulus and help to all efforts in giving a medical education, while it will bring about uniformity in the work done in the various missions and hospitals and raise the standards and create an *esprit de corps* very valuable to the profession in China.

Philander Smith Memorial Hospital, Nanking.



THE AMERICAN TROOPS IN CHINA.

By CHAS. LEWIS, *Surgeon U. S. Legation Guard, Peking.*

In furnishing this report to the JOURNAL, I have a dual reason in mind: in the first place, I think many of my colleagues in China, especially Americans, are anxious to know how our fellow-countrymen fared, who came to our relief, and how many laid down their lives in the struggle; and in the second place, I desire that we all may have the benefit of whatever lessons are to be learned from these statistics. I may say here that the following statistics refer only to the army, and do not include the navy and the marine service.

Our troops began to land in China, at Tong-ku, on July 9th, 1900, and proceeded to Tientsin by junk, where on July 13th two battalions of the

9th Infantry took part in the battle for the capture of Tientsin (native) city. In this battle they sustained a loss of nineteen killed, including their commander, Colonel Liscum, and sixty-six wounded, including four commissioned and eighteen non-commissioned officers. These wounded were transferred to the U. S. S. *Solace*, and I have no means of knowing in most of the cases how they fared from their wounds.

The third battalion of the 9th Infantry had not arrived from Taku in time to take part in the battle of Tientsin.

The 14th Infantry and 5th Artillery, Battery "F," arrived in time to proceed on the march to Peking. Both regiments and the battery were in action at the battle of Yang-tswen on August 6th, where we lost seven killed and fifty-nine wounded.

At Ma-tao, ninety-six men were left behind in quarters, on account of heat depression, on August 13th.

This same force with the addition of "M" troop of the 6th Cavalry took part in the engagement before Peking city walls, where they suffered a loss of six killed and thirty-one wounded. After the capture of the city our troops went into camp in the Temple of Agriculture. The 15th Infantry came too late to take part with the relief column, and remained encamped at Tientsin until they left China in November. The 6th Cavalry were encamped at Yangtswen, and here in Peking, where one squadron remained until this spring; the other squadron and the 14th Infantry leaving in November. "F" Battery also remained here in the Temple of Agriculture during the winter.

The following are statistics from August 1st, 1900, to April 30th, 1901:—

PER CENT. OF SICK AND WOUNDED BY MONTHS.

August, 1900,	strength of command,	3891 ; non-effective,	9.7 %
September, "	" " "	3818 " "	10.3 %
October, "	" " "	4044 " "	7. %
November, "	" " "	2396 " "	6.2 %
December, "	" " "	1896 " "	5.7 %
January, 1901,	" " "	1853 " "	4.9 %
February, "	" " "	1900 " "	4.8 %
March, "	" " "	1898 " "	3.3 %
April, "	" " "	1836 " "	2.7 %

Average for the nine (nine) months is 5.8 %.

From the above it will be seen that the highest per cent. of sickness was during September, when diarrhea was at its worst.

From the following table will be seen the prevailing diseases for each month from August, 1900, to April, 1901, inclusive.

PREVAILING DISEASES FOR AUGUST, 1900.

Diarrhea,	No. of cases, 762; per centage of disability,	.185
Dysentery,	" " " 154 " " "	.039
Malarial Fever,	" " " 102 " " "	.026
Venereal Diseases,	" " " 54 " " "	.013
Typhoid Fever,	" " " 9 " " "	.002

PREVAILING DISEASES FOR SEPTEMBER, 1900.

Diarrhea,	No. of cases, 763; percentage of disability,	.199
Dysentery,	" " " 111 " " "	.029
Malarial Fever,	" " " 113 " " "	.03
Venereal Diseases,	" " " 40 " " "	.01
Typhoid Fever,	" " " 22 " " "	.0055

PREVAILING DISEASES FOR OCTOBER, 1900.

Diarrhea,	No. of cases, 237; percentage of disability,	.059
Malarial Fever,	" " " 174 " " "	.043
Venereal Diseases,	" " " 107 " " "	.026
Respiratory " "	" " " 102 " " "	.025
Typhoid Fever,	" " " 21 " " "	.0053

PREVAILING DISEASES FOR NOVEMBER, 1900.

Malarial Fever,	No. of cases, 130; percentage of disability,	.054
Venereal Diseases,	" " " 111 " " "	.046
Respiratory " "	" " " 64 " " "	.027
Diarrhea,	" " " 50 " " "	.02
Typhoid Fever,	" " " 24 " " "	.0061

PREVAILING DISEASES FOR DECEMBER, 1900.

Respiratory Diseases,	No. of cases, 128; percentage of disability,	.068
Malarial Fever,	" " " 75 " " "	.039
Venereal Diseases,	" " " 48 " " "	.025
Digestive " "	" " " 29 " " "	.015
Typhoid Fever,	" " " 4 " " "	.001

PREVAILING DISEASES FOR JANUARY, 1901.

Venereal Diseases,	No. of cases, 67; percentage of disability,	.036
Respiratory " "	" " " 65 " " "	.035
Malarial Fever,	" " " 42 " " "	.023
Digestive Diseases,	" " " 17 " " "	.009

PREVAILING DISEASES FOR FEBRUARY, 1901.

Respiratory Diseases, No. of cases, 61; percentage of disability,	.032
Venereal " " " " 34 " " "	.018
Malarial Fever, " " " 23 " " "	.012
Digestive Diseases, " " " 11 " " "	.006

PREVAILING DISEASES FOR MARCH, 1901.

Respiratory Diseases, No. of cases, 38; percentage of disability,	.021
Venereal " " " " 32 " " "	.017
Malarial Fever, " " " 20 " " "	.011
Digestive Diseases, " " " 20 " " "	.011

PREVAILING DISEASES FOR APRIL, 1901.

Venereal Diseases, No. of cases, 49; percentage of disability,	.027
Malarial Fever, " " " 16 " " "	.009
Respiratory Diseases, " " " 13 " " "	.007
Digestive " " " " 10 " " "	.005

The aggregate mortality of the expedition, exclusive of U. S. marines, and possibilities of fatalities among wounded transferred to hospital ships, is as follows, viz. :—

Killed in action,	33; percentage of total mortality	.317
Died of wounds,	19 " " " "	.182
Pneumonia,	12 " " " "	.115
Dysentery,	24 " " " "	.238
Typhoid Fever,	2 " " " "	.019
All other diseases,	14 " " " "	.135
Total,		104

From this table it will be seen that dysentery has ranked first among diseases in claiming its victims, but this must not be laid to China entirely, as the troops coming from Manila were very much debilitated, and no doubt a number of those who died here with dysentery, had the disease well fixed upon them before leaving the Philippines.

The two deaths from typhoid fever were from perforation, one being a walking typhoid.

During the month of September there were twelve deaths from dysentery. Of these I saw a good many in autopsy and in no case was there a sign of ulceration in the small bowel. Indeed there was no sign of inflammation in the ileum, even close to the ileocecal valve. But in most cases the whole of the large intestine was a mass of ulcerating surface. In most cases the ulceration had gone on so that in many patches nothing but the serous coat of the bowel remained, and in several cases perforation had taken place.

In October the deaths from dysentery dropped to four, and in November to two, disappearing entirely in December, when pneumonia appeared in a specially grave form. During December we had seven deaths from this disease, when the strength of the command was but 1,896. During January and February we had no deaths from pneumonia, but in March three men died, and in April one man died of pneumonia.

Had our men been in good condition as to their alimentary tracts when they came to China, pneumonia would probably head the list as a cause of death from disease.

The health of the command has been better here than in most posts at home, which goes to indicate that North China is healthful. The guard work has been heavy, but the men have kept well. Unhealthfulness among missionaries, especially among women in North China, may have a large mental element, due to isolation.

These men were exposed to the strongest sun's rays with only felt hats for head protection, and though about 100 were overcome by the heat and thirst for the time being, there were no permanent injuries from the heat. There is a general belief that one must not go out in the heat of the day without a helmet, at the risk of permanent injury. This experience explodes such a theory. The sick and wounded reports of July and August are made up in the main of reports of cases of "diarrhea" and "malarial fever," but the latter disappeared almost entirely after the troops had been in China for some time, and many of the cases of diarrhea became dysenteric. We have had almost no cases of malarial fever that have not had a history of having had the same in either Cuba or the Philippines. In cases of dysentery nothing but topical treatment has been of any avail.

We had but three cases of small-pox, all of which recovered. The entire command was vaccinated twice during the spring.

Among the venereal diseases, syphilis has been extremely common. The climate is averse to the use of *mercury*, salivation occurring upon the use of a very small quantity. It is better given with atropine.

U. S. Legation, Peking, China.

A PLEA FOR HYGIENE.

By KATE C. WOODHULL, M.D.

Lord Palmerston is said to have acted rashly sometimes when Foreign Secretary of England, but he possessed some sound notions on sanitary questions. It was when Secretary of State, under Lord John Russell, that Lord Palmerston was written to by the Presbytery of Edinburgh, asking whether a national fast ought not to be appointed in consequence of the appearance of cholera.

Lord Palmerston gravely admonished the Presbytery that the maker of the universe had appointed certain laws of nature for the planet on which we live, and that the weal or woe of mankind depends on the observance of those—one of them connecting health with the absence of those noxious exhalations which proceed from overcrowded human beings, or from decomposing substances, whether animal or vegetable.

He therefore recommended that the purification of towns and cities should be more strenuously carried on. He said to them: "The causes and sources of contagion, if allowed to remain, will infallibly breed pestilence and be fruitful in death, in spite of all the prayers and fastings of a united but inactive nation."

The prevalence of plague among us has caused us seriously to consider the question, "What can we do to improve the conditions of living of our native Christians?" Already the dread disease has claimed for its victims some of our most valued native workers.

It is indeed very sad to see Chinese Christians living under the same unhealthful conditions as their heathen neighbors, when with a little effort they could greatly improve their surroundings if they understood the importance of it.

We have in our mind a vivid picture of a visit to one of our country stations a few years ago. As we came to the village where several of our Christians were living, the air resounded with "Kie-na, kie-na," "Have you brought *quinine* with you. We all have chills and fever." These families were living on a knoll, most favorable for drainage. But there was filth and stagnant water all about their doors. Not the least effort had been made in the direction of cleanliness. They were sallow, weak, and sick, and they could think of only one way of relief—to take *quinine*.

When we visited Pao-ting-fu those dear sisters, Miss Morrill and Miss Gould, who are now wearing the martyr's crown, were very busy with what they called their "real estate venture." They had purchased a cluster of small houses, opening on a court, and were draining and repairing to rent them to the native helpers, their personal teachers, etc., that they might have healthful homes.

We thought that an example which all missionaries might follow on a large or smaller scale.

Our native helpers have great difficulty in finding suitable places in which to live; we might perhaps do much for them in this way, but the better and more effective way would be to so saturate their minds with the importance of hygienic living that they would be as unwilling as we to live amid unhealthy surroundings.

Of course the best time and place for giving such instruction is in our schools. Now that we are training medical students, would it not be a good

plan to have in each of our boarding-schools one of these hospital graduates as house physician and teacher of anatomy, physiology and hygiene? It seems as if a good deal might be done in that way.

Another way that would seem to promise good results would be to try to interest the officers of our various localities in public hygiene. Most of the missionaries are on intimate terms with a few officials, and have opportunities to chat with them. These occasions might be improved to urge them to adopt measures to preserve the public health. This would be likely to appeal to them, as they well understand that their families share the dangers with the poorest.

The officers in Foochow have tried this summer to do something, but in their ignorance the measures they have adopted are of doubtful benefit. They have caused to be erected, at frequent intervals in the streets, brick receptacles for refuse. Men are expected to remove this. We have often seen these men removing a part of this, we have never seen one emptied, and the remainder, wet and dry, is left to ferment. What is removed is simply taken a little farther away and piled up to pollute the air. If the officers could be induced to build furnaces with high chimneys (or even without chimneys) and have the refuse collected and burned, it would do much to ensure a purer atmosphere.

When God instructed the children of Israel in ways of living, He did not think it unimportant to give minute instructions in regard to hygienic living. The divine voice instructed Moses carefully as to the methods of ensuring clean homes and surroundings. In carrying the gospel to the heathen we surely will do well to remember the instructions of our great guide book in matters pertaining to the health of the people whom we desire so much to benefit.

We doctors are so busy trying to heal the wounds and bruises already inflicted that perhaps we are in danger of forgetting our duty to take the initiative in this matter and urge upon all missionaries the importance of instructing and helping our native brothers and sisters to understand the importance of avoiding the causes of disease.

American Board Mission, Foochow.

CASE OF AN HERMAPHRODITE.

The following case of spurious hermaphroditism, reported to the JOURNAL from an interior city, seems of sufficient interest to find a place in our pages. The individual concerned was a young Chinese twenty-three years old and was a candidate for orders in the Roman Catholic Church. He was sent to the physician reporting the case, by the priest in charge, with the request

that a thorough examination be made, so that his mind might be set at rest in regard to the sex of the individual ; it being very desirable that they should be perfectly assured before ordaining him that he was not a woman. On questioning him, before proceeding with the physical examination, it was ascertained that he had at times nocturnal emissions, that he had erections and that he suffered at times from lascivious thoughts when in the presence of women, but not with men. The general physiognomy was that of a man, though there was no sign of hair on the face. The breasts were well-developed and distinct glands could be felt beneath the skin.

The external genitals were strikingly like those of a female, except that the right labium was very large, much larger than its fellow on the left side, and contained a well-developed testicle, while on its left side was a fairly well-formed penis. Instead, however, of the urethra terminating at the meatus, which was distinct but not patulous, it terminated below the penis and between two rudimentary labia minora.

There was no vagina whatever, nor any womb, so far as could be made out by examination per rectum.

The hair on the pubes was abundant.

In view of the general physiognomy of the individual, the presence of at least one testicle, the occurrence of seminal emissions and distinct erections of his fairly well-formed penis, it was thought there could be no doubt that he was a male, and such a report was made to the priest.



Medical and Surgical Progress.

Medical.

Under the charge of Robert T. Booth, M.B., B.Ch., R.U.I.

THE ORIGIN OF GASTRIC ULCER.

This interesting subject is ably dealt with by Dr. Gordon, M.D., M.R.C.S., in the *Bristol Medical and Chirurgical Journal* for June, which has just come to hand. It is a curious fact, he says, that with all our learning we have learnt so little of the causes of gastric ulcer. He then refers to the theories in vogue at present and states them as follows:—

(1). The theory of embolism of a gastric artery.

(2). The theory of thrombosis of a gastric artery.

(3). The theory of thrombosis of a gastric vein.

(4). The theory of spasm of a gastric artery.

(5). The theory of hæmorrhage into the gastric wall.

(6). The theory of injury to the gastric wall from within

(a) by scalding material,

(b) by corrosive poisons,

(c) by sharp objects swallowed.

(7). The theory of injury to the gastric wall from without

(a) by tumors, aneurysms, etc.

(b) by mechanical pressure exerted from without the body.

(8). The theory of neurotrophic lesion.

(9). The theory of autodigestion from hyperacidity.

(10). The theory of bacterial necrosis.

And finally the theory that all these are true, and what one will not account for another will. He then proceeds to consider these theories seriatim and points out that when Rokitansky stated that acute perforating gastric ulcers were not due to inflammation, Virchow based his theory of embolism of gastric artery on this fact and

secondly on the position and form of the ulcer. It has been proved experimentally by Panum and Cohnheim that embolism of a gastric artery can cause an ulcer, but Gordon then asks the question, "Does it cause the disease as we find it in practice?"

"Embolism," he says "may be considered as of two sorts: (a) masses of microbes circulating in the blood, and (b) vegetations or clots set loose from heart or blood vessels. With regard to (a) we plainly have not such to deal with in ordinary gastric ulcer. Microbic emboli have only been met with in cases of anthrax and other infective disorders. It is in respect of (b) that we must carefully consider this theory. If the theory is correct we ought to find that when a source for emboli is present, gastric ulcer (a common disease, we must remember) should not be rare, and when gastric ulcer is present we ought not seldom to discover a source for the emboli. What are the facts? When many emboli are being thrown off from the heart valves and embolism is appearing in various organs, the gastric arteries almost always escape obstruction. Out of seventy-one cases of ulcerative endocarditis producing emboli in viscera, recorded by Dr. Fenwick at the London Hospital, not one showed embolism in the stomach. Again experimentally emboli have been thrown in large numbers into the circulation, yet only three per cent. to five per cent., or less, have found their way into the gastric arteries.

The only cases in which Fenwick has seen marked embolism of these arteries were very rare cases of disease (aneurysm) of the neighbouring large vessels. Again it is a familiar fact that the vast majority of patients who present themselves with gastric

ulcers, have no disease either of the heart or vessels capable of producing emboli." He concludes from this evidence that no reasonable person can contend that gastric ulcer is the result of embolism.

He then proceeds to deal with the other theories and shows that there are two important facts against 2, viz., (1) young women, in whom perforating gastric ulcer is most common, are far below the age at which atheroma occurs; (2) syphilis, in the country districts at least, cannot be the cause in the vast majority of cases.

Fenwick's experiments have shown that ligation of small gastric veins does not lead to ulceration. This is strongly against 3. With reference to 4 he says that there is no reasonable evidence in its favor.

Pye-Smith denies 5 on the ground that if such were its origin it ought to be frequent in those who suffer from portal obstruction, as a result of disease of heart or liver. "Hæmorrhagic erosions," he says, "are common in cases of this kind, but not gastric ulcer." 6 and 7 are possible, though not probable causes. There is no evidence in favor of 8. With regard to 9 he says that he is not aware that there is any evidence to prove that hyperacidity precedes the ulcer. Bacterial necrosis is a form of "bacterial infection which is unassociated with the signs of active inflammation." Very little is known as yet about this form of microbic injury, and Dreschfield says "this view may as yet be looked upon as purely hypothetical."

Finally the theory that all these are true, he thinks we shall be dealing liberally with them all in suggesting that taken together they may perhaps account for five per cent. of the cases.

"What then," he says, "is the origin of the remaining ninety-five per cent.?" If gastric ulcer were an entirely new disease, we would immediately think of inflammation and microbic invasion. The reason we don't turn to these explanations is that

we have been brought up to believe that inflammation has nothing whatever to do with the development of acute gastric ulcer, and that in chronic gastric ulcer the evident inflammation is not primary and secondary. If acute gastric ulcer is not inflammatory, how does it form adhesions? To argue that the inflammation that causes the adhesions is secondary is to beg the question. In very rare instances gastric ulcers have been found to be tubercular. Were these in their origin also non-inflammatory? The evidence of the operation table is against that of the post mortem room.

In forty-three cases of perforated gastric ulcer, at the time of operation, induration was noticed in forty. It can hardly be assumed that these forty were chronic and the remaining three the only specimens of acute gastric ulcer in the list.

Again quoting from Dreschfield: "Jaworski and Korczynski find that the mucous membrane of the stomach in all cases of gastric ulcer shows changes which become more evident on microscopic examination. These changes consist in cell infiltration between the several layers of the coats of the stomach and marked inflammatory changes in the walls of the blood vessels (both veins and arteries) and in the neighbourhood of the nerves also. According to these authors the *inflammatory changes are constantly found in cases of gastric ulcers, and are looked on by them as primary.*"

Gordon then says: "As matters stand, it may at least be considered permissible to set aside entirely all preconceived ideas of gastric ulcer and to ask ourselves what we might expect to happen if a culture of some common microbe, such as staphylococcus aureus, were rubbed into the mucous membrane of the stomach."

He then goes on to show that there is an almost constant swallowing of microbes, states what is almost certain to be the effect thereof. (In connection with which I may call attention of readers to the April number of the CHINA

MEDICAL MISSIONARY JOURNAL, Medical Progress section, where the mouth as a cause of stomach disease is dealt with.) He assumes that it is possible for a culture of some microbe to be rubbed on the stomach wall, and then according to the virulence of the micro-organism, and the position of the point of entry, we might have one of several results.

(a). "If the micro-organisms were virulent, and the point of entry such that the gastric juice did not speedily reach it, it is conceivable that a focus of acute inflammation might develop in the thickness of the gastric wall. That wall is not a very thick one, and it would not require very long for serious injury to have been done to a circular area of the size of a three-penny piece extending through the whole thickness of the coats, but with rather a greater diameter on the side of entry. In most cases this area of acute inflammation would be surrounded by a zone of red and swollen tissue just as a boil is, and, in the centre, necrosis would be tending to begin. Now conceive the effect on this patch of inflammation of an access of gastric juice. Would not the deeply injured area be simply digested out, leaving a clean-cut circular 'punched out' opening surrounded by a zone of swollen tissue, more or less infiltrated with leucocytes, close to the margin of solution?" This would, he says, correspond to the condition of things seen by operators.

(b). "If the micro-organisms were less virulent, only a slight erosion might take place.

(c). "Between these conditions all variations might occur.

(d). "Or the organisms might have spread deeper before the gastric juice invaded the superficial layers, and the slow process of ulceration and digestion of damaged tissue might proceed indefinitely, together with irritation of the exposed surface, both mechanically by food and chemically by acid juice." This would, in his opinion, adequately account for the chronic

"funnel-shaped" ulcer. There is nothing inherently improbable or foreign to pathological experience in any of these conceptions. An hypothesis of bacterial origin has, on the contrary, this in its favor, that for a common disease it furnished a common cause. With such an hypothesis, however, we should expect other peculiarities to obtain, e.g.,

(a). We should expect that that part of the stomach where the gastric juice is alkaline at the moment of its secretion would be the part which would be the least protected from invasion by micro-organisms, and therefore we should expect the pyloric region of the stomach would be a very common situation for gastric ulcer. This is so. Statistics show that seventy-five per cent. of the ulcers are found there.

(b). We should expect that the part of the stomach which, being most fixed and uppermost, serves to sling the stomach (*i.e.*, lesser curvature) would suffer more than those parts which are continually bathed in acid. It is shown that the neighbourhood of the lesser curvature suffers far more than the greater, whilst ulcer of the fundus is very uncommon.

(c). We should expect that the parts of this upper portion most remote from the effects of the juice, would be the seat of election for perforating ulcers, *i.e.*, that they would be commonest near the cardiac orifice and more frequently on the anterior surface, inasmuch as a considerable portion of the twenty-four hours is spent in a recumbent posture. This is so. Blinton having found that seventy per cent. of all perforations were on the anterior surface of the stomach. Again in a list of operation cases collected by Dr. Gordon himself, the majority of perforating ulcers were at the cardiac end.

(d). We should expect that if an open ulcer existed on one wall, a second would sometimes form on the opposite wall where the two walls occasionally came in contact, and

rubbed on one another. That this is so has again and again been noticed, and there was always some difficulty of explanation with the old theories.

(e). We should expect that if one of these two ulcers perforated, in all probability it would be the anterior one which would go first. It has been shown that sometimes both perforate, but that when one does, it is *always* the anterior.

(f). We should expect the typical progressive chronic ulcer to be most frequent on the posterior wall. According to Fenwick's table this is seen to be the case, forty-six to seven.

(g). We should expect to find on microscopic examination of the edges of an ulcer evidence of inflammation, less in acute and more in chronic; and certainly we should expect some evidence of microbes in the tissues, microbes growing amongst inflammatory products a little way from the edge, or enclosed in phagocytes in the neighbourhood of the lesion."

With regard to this last point Dr. Gordon speaks less certainly, as he says it is not wise to base too much proof on a single specimen. Still taking it for what it is worth, and it is worth something, this specimen, one which he prepared himself, showed close to the margin of the perforation abundant evidence of acute inflammation, abundant migrated leucocytes. About one-eighth of an inch from the margin abundant cocci were seen. About half an inch from the edge there was very little leucocytic infiltration, but chains of large cells, crammed with cocci, were seen apparently travelling back from the inflammatory focus along the lymph paths of the tissues.

It seems to me that Dr. Gordon, although he may not definitely have proved his case, has at any rate thrown considerable light on many dark points connected with this interesting subject. He has also justified a further research along the

lines marked out, and we cannot but feel confident that with the help that modern bacteriology affords, something definite as regards the causation of this common disease will soon be forthcoming.

TREATMENT OF LEPROSY—RECOVERY.

With so many vaunted cures for this loathsome disease, it is probable that most of us have at one time or another tried the efficacy of one, two, or even more of them. *Curjun oil*, *chaulmoogra oil*, *Unna's chrysarobin*, *salicylic*, and *creasote plaster*, *Unna's pyrogallic ointment*, *salol*, *salicylate of soda*, have all been brought forward at one time or another and accredited with almost specific properties. However, disappointment has only resulted in the majority of cases, even when they have been constantly under supervision.

It is encouraging then when we read of two cases of cure, and these cases reported by no less an authority than George Thin. Writing in the *B. M. J.* for May 4th, he reports two cases of nerve leprosy, the cure of which he ascribes to drugs.

In the beginning of his article he points out that the chances of cure in nerve leprosy are considerably more probable than in tubercular leprosy. His two cases were of the former class. The first a boy of eleven years of age, born in the West Indies and brought to England when he was four. Shortly afterwards he developed what was diagnosed leprosy by Erasmus Wilson. When he came under the care of Dr. Thin, the condition was fairly well advanced, both as regards anæsthesia and deformity. "The boy had the physique of a lad of seven or eight instead of eleven; the limbs being small and shrunken, and his appearance that of an atrophied and wasted creature." The main line of treatment followed was the administration of *chaulmoogra oil*, both internally and externally. In three months' time he had considerably improved; was taking twenty-

one drop of the oil without discomfort. He was seen again on two occasions. The third time was about eight months after his first visit. He was then much better, but showed the presence of bullæ on the wrist, which left raw surfaces. These, however, had begun to heal over under *boric acid* ointment at the time of the fourth visit, four days after. The patient then disappeared and was not seen for thirteen years. He then returned, identifying himself with the leper boy of thirteen years before. He had been in perfect health for a number of years, and said that the remedies that had been prescribed for him had cured him. "On examination I found that his trunk and limbs showed hard muscular development without much fat. There was no anæsthesia in the skin of the face, the muscular development of which was perfect; his eyes looked healthy and he had normal eyebrows. The only evidence of his having had leprosy was found in the mutilation of the hands and feet and in the incomplete restoration of sensation on some parts of the limbs." His mother reported the following notes of treatment: "We followed your instructions for a year; he began by taking *chaulmoogra oil*, increased the doses from three to seven drops. . . . *Chaulmoogra oil* was well rubbed all over his body at night. In the morning he had a tepid bath, in which *boracic acid* was dissolved. He was much in the open air, and slept with his window open, both summer and winter, and took good nourishing food. After about a year his system became so impregnated with *chaulmoogra* that his linen, even after being washed, smelt of it, as also did his skin and hair. He had used the oil for several months before the smell became perceptible to those about him. It at last became so distasteful and repugnant to him that he refused to take any more of it, and we did not insist on his doing so, as he was so much better in every way. From that time till now he has steadily improved in health and

strength. He twice began the oil again, but did not continue it for any length of time."

Dr. Thin very rightly, I think, attributes this cure to the use of the *chaulmoogra oil*. His second case refers to another of the well-known means of cure. Dr. Thin says: "I put this case on record chiefly because I was a witness to the effects of locally applied *pyrogallie acid*, which had been recommended in the treatment of leprosy by Dr. Unna shortly before the patient was brought to me." The treatment of this case consisted in the long continued application of *pyrogallie ointment* to the affected part and the regular exhibition of *gurjun oil* internally, *arsenic* being given intermittently. When the patient came "the appearance was characteristic of nerve leprosy in the early stage." There was a slightly discolored patch on the face. The border was raised, the centre was completely anæsthetic, but the anæsthesia was only partial at the periphery. There was one other patch about the size of a three-penny piece over the spine between the shoulders. Treatment was as follows: "five per cent. *pyrogallie ointment* to be rubbed into both places twice daily, a drachm of *gurjun oil* to be taken twice a day and two minims of *Fowler's solution* twice daily." The strength of the ointment was increased to seven and a half per cent. after a week. This treatment was entirely successful with the patch on the back, which disappeared in less than a month. The patch on the face became gradually less anæsthetic from month to month, the improvement, although not so great as at first, being always progressive. About twelve months after he was first seen some anæsthetic patches appeared on the thigh and leg, but these quickly cleared under the *pyrogallie ointment*. The use of the above drugs, with the exception of the *arsenic*, which had to be discontinued, was kept up for over two years under observation. After that the patient

was not seen for over two years and then it was found that the patch on the face had disappeared, that sensation of the part had completely returned. The question raised by this case is how much of the improvement was due to the *gurjun* oil and how much was the *pyrogallie ointment* responsible for? This is of the opinion that in this instance the *pyrogallie ointment* eradicated the small recent patches of anæsthetic leprosy. The *pyrogallie acid* probably kills the bacilli in the skin lesion. The patient was kept under observation for some years after and made a perfect recovery.

NASAL TUBERCULOSIS.

In the *B. M. J.* for May 25th, notice is drawn to this affection. This condition was first noted by Morgagni, but the first primary cases were published by Riedel. Renshaw writing in the *Journal Pathological and Bacteriological* for February expresses the opinion that the condition is not so rare as is generally supposed, and that if looked for many obscure nasal affections would prove to be of this nature. Cases of strumous glands in which no primary cause is to be found, may also in some cases be due to primary invasion of the nose. In a series of experiments on guinea pigs he was able to show that the nasal mucous membrane may be infected by simply introducing sputum, while leaving the membrane intact. In these experiments he used eight animals, all of which showed signs of irritation, and seven definite tuberculous lesions. It is interesting and important to note that with regard to extension from this primary focus, infection of the meninges did not occur, even in extensive ulceration in the superior fossa, nor was direct infection of the respiratory passages found. In every case the track of invasion was by the lymphatics to the glands, and from these to the viscera. The further the lesion is from the

entrance to the nostril the more rapid it seems is the course of the disease and the earlier the invasion of the other organs.

AGGLUTINATION IN THE BLOOD OF MALARIAL PATIENTS.

Two competent observers early in the year pointed out that in the course of some researches on malarial blood in man they found that it possessed agglutinative properties. They found that the blood of malarial patients had the power of agglutinating the blood of normal or of malarial subjects. This power was present in the incubative period, reached its maximum during the period of pyrexia and decreased and disappeared when there no longer existed fever and parasites in the blood. If the blood in malaria is diluted with a physiological solution of *quinine*, the agglutinating power is destroyed; in non-malarial blood the *quinine* does not seem to have this property.

The same observers, Lo Monaco and Panichi, have also been studying the effect of *quinine* on the malarial parasite "*in vitro*," and have found that the degree of resistance in the first stage of development is very high throughout the whole course of infection (corresponding to an equivalent of twelve to fifteen grams of *quinine* in the circulation). In the second stage (with small pigment masses at the periphery or at the centre) a variable degree of resistance is offered, high during apyrexia and so low during the febrile attack as to be easily overcome by medicinal doses of *quinine*. In connection with this fact they point out that clinically the early doses of *quinine* check the development of the parasites in the second stage and prevent their progress into the third or segmentation stage. Repeated doses of *quinine* kill those parasites which, owing to their great resistive power, were able to escape the effect of the initial dose. They further point out that *quinine*

seems to act directly on the parasite, hindering its further development either by killing it whilst it is attached to the corpuscle (when the quantity of the alkaloid is strong) or (when the solution is weaker) by setting the parasite free and letting it fall into the plasma, where it becomes swallowed up by phagocytes. Probably antiparasitic substances are formed in the system naturally, and do their part in getting rid of the parasites, for many people recover without the aid of the drug.

If these observers are as correct in their conclusions as they seem to be in their experiments, it throws some doubt on the present theories.

From what they say it seems that the quinine does not attack the parasite while it is free in the plasma, before it has attached itself to the corpuscle, and only in the latter case when quinine is in strong solution. Most of the teaching at the present day has been to the effect that quinine is most efficacious when the spores are free in the plasma, just after sporulation, and that the drug should be given at such time as will enable it to exercise its most powerful effects at that time.

UROTROPIN; DANGER IN ITS USE.

In the *B. M. J.* for June 15th, 1901, there is an interesting article calling attention to the fact that hæmaturia has followed the use of this drug. This is very important, for it has been vaunted as a very useful drug in both preventative and curative treatment of urinary trouble. It has been recommended in typhoid fever to prevent urinary complications, and also to prevent infection of other people by the urine. I have used it with success myself to prevent the ill effects of long continued use of a silver catheter, which had to be tied in, in a case of traumatic rupture of urethra.

Up till quite recently no serious objections were lodged against the use of this drug. It is true that attention

had been drawn to the fact that if the urine were allowed to get concentrated, some urethral pain might ensue. And Mogli reports a burning and a pricking sensation in the bladder; increased strangury and appearance of red blood corpuscles in the urine following the use of the drug in cases of cystitis of gonorrhœal origin. But he employed much larger doses than usual. W. Langdon Brown, in the article referred to above, records two cases of hæmaturia following the use of ten grains of *urotropin* three times a day. These cases were typhoid, and in both the drug was used. Some days after, difficulty of micturition, followed by smoky urine, took place. This stopped as soon as the *urotropin* was discontinued. Dr. Brown says: "The occurrence of hæmaturia in two cases admitted on successive days after *urotropin* had been given for eight days, and its rapid subsidence after the drug was stopped, is too striking to be a mere coincidence.

Hæmaturia resulting from nephritis in enteric fever, is not unknown, but in such cases *urotropin* seems to be beneficial. In my cases the bladder would seem to be the source of hæmorrhage." In the *B. M. J.*, June 29th, there are two more cases of hæmaturia reported, and also one case of albuminuria, which all ceased after the stoppage of the drug.

These instances show us that there is a certain amount of risk in the use of this otherwise very useful drug. But, as I said above, in the one case in which I used it with good effect for some two months, there was not any sign of hæmaturia or albuminuria.

TRIONAL AND SULPHONAL.

While discussing dangers in the use of certain drugs, it will be well not to pass over the well-known hypnotics—*trional* and *sulphonal*—which most of us use at some time or another, without any serious consequences. How-

ever it has not been the lot of others to have this uninteresting experience with these drugs, so we frequently find in the different journals references to some ill effect. In the *American Journal of the Medical Science*, April, 1901, a case of *trional* poisoning is recorded. In this case there was neuritis and hæmatoporphyrinuria. The case was a lady of fifty who had been accustomed to the constant use of the drug to prevent insomnia. In two months she had taken about thirty fifteen-grain doses of the drug. She was then seized with acute gastro-enteric inflammation. These symptoms continued for some five days, during which the *trional* was discontinued and *morphine* administered. She then passed dark red urine, containing a trace of albumen. One day twelve ounces of black urine was voided. No blood was present, but the spectrum showed the presence of hæmatoporphyrin. The pulse became intermittent and an apex murmur was heard. A few days later there was tingling in both arms, and the knee-jerks were absent. There was pain in the left elbow, and the legs were weak. Tactile and thermic sensations were diminished, but not absent. Paresis appeared in the extensor muscles of the left arm and in the leg. RD was obtained. The patient slowly and gradually recovered from these symptoms, and the heart condition also cleared up. The recorder of the above case considers that the *trional* is to blame for these symptoms.

It is well known that administration of *sulphonal* has been followed by hæmatoporphyrinuria. In the June 15th *B. M. J.* there is a fatal case recorded. This case, also one of insomnia originally, had been in the habit of treating himself with hypnotics, principally *sulphonal*. He was

seized with gastric symptoms, for which he sought advice. He became delirious, and gradually passed into a state of delirium tremens. The gastritis passed off, and in a few days he was able to take food by the mouth. A few days after onset the urine was noticed to have a peculiar odour, at one time like *chlorodyne* and at another it smelt like celery, and had the appearance of port wine. There was no albumen nor blood present. Spectroscope showed the bands of hæmatoporphyrin. He went from bad to worse, became tremulous, restless, and violent. General paresis followed. Epileptic convulsions occurred some four days before death and at short intervals until the end.

There have been several theories as to the nature of the cause of these serious conditions. In the *sulphonal* cases the symptoms are said not to depend so much on the direct action of the *sulphonal* itself as on chemical changes, almost certainly alimentary in the first place, and probably hepatic, of which the *sulphonal* has been the exciting cause. The similarity in the chemical constitution of these two drugs favors the view that *trional* acts in a similar manner. However, others have said that the symptoms are due to some irritation produced in the kidneys, whether by the *sulphonal* itself or as the result of changes produced elsewhere, in the liver, for example, they do not state. Others again ascribe the symptoms to changes produced in the central nervous system. As regards the neuritis in these cases, it is well not to forget that the increased exhibition of the coal-tar products within the last few years, has apparently been followed by a relative increase in the number of cases showing neuritic symptoms.

Surgical.

Under the charge of Sydney R. Hodge, M.R.C.S., L.R.C.P.

TRIGEMINAL NEURALGIA.

In the June No. of the *Annals of Surgery* there appear two articles on the pathology of this affection and on the operative technique for removal of the gasserian ganglion. The summing up of the former question is as follows: "It is quite evident that trigeminal neuralgia is not a definite disease, but merely the symptoms of various processes affecting the fifth nerve anywhere in its course from the ganglion to its peripheral termination. It is extremely probable that no disease of the nerve-cells *per se* exists as a primary parenchymatous affection. In the present state of our knowledge we are justified in assuming two main divisions of trigeminal neuralgic affections. First, and the more common, is a neuritis beginning in the terminal divisions of the fifth nerve and having a tendency to ascend to the ganglion. Second, an interstitial inflammation, chronic and progressive, of the ganglion body itself. . . . A third division is possible, and there have been two cases reported, that is, a central neuralgia or neuritis affecting the sensory root as it leaves the ganglion on its way to the pons." The etiology of the affection includes trauma, new growths, mechanical influences and toxæmias. We must look to future pathological study to help us, in conjunction with improved clinical knowledge, to tell what portion of the nerve is affected—if the ganglion, then removal of that is indicated, if some peripheral branch, then a peripheral operation is the one to choose.

Excision of the gasserian ganglion has only been practised of recent years, and the indications for the operation have been laid down to be (1) the involvement of more than one branch of the nerve, (2) the presence of pain in an area which receives its nerve near the latter's point of exit

from the skull, (3) paroxysms which are not the expression of constitutional or cerebral disease, (4) the failure of all other therapeutic measures. . . . The most usual route to reach the nerve, and the one which is the most direct way to the ganglion, is to cut an opening through the roof of the zygomatic fossa. There are, however, two great objections to this method: (1) that so many vessels and other important structures are encountered and (2) that it is almost impossible to completely expose the ganglion and remove it intact in this way. The high temporal operation of Krause, in which the cranium is entered from the side instead of from the front, has as its chief drawback frequent and troublesome hæmorrhage from the middle meningeal artery. The low temporal operation of Cushing is said to have all the advantages, without any of the difficulties, of the older operations. In this proceeding the main object is to make an opening so low in the temporal fossa that the removal of the ganglion can be accomplished without the danger of injury to the middle meningeal, thus rendering preliminary ligation of the carotid unnecessary. A horse-shoe incision is made, the base of it resting on the zygoma and its highest limit but little above the helix of the ear. The zygoma is chiselled off at both ends, retracted downwards with the soft tissues and the lower portion of the temporal fossa opened with a chisel and rongeur forceps. The middle meningeal artery can now be seen crossing the opening and can easily be followed to the foramen spinosum and injury of it avoided. The operation is a difficult one, and takes some three hours to perform, even in experienced hands. Profuse hæmorrhage is one of the most difficult complications of the operation, but occasionally even a worse condition is met with. In one case

"on uncovering the ganglion the meninges were torn, cerebro-spinal fluid deluged the field, profuse hæmorrhage commenced, particles of brain matter were lost, and pulse, as well as respiration, stopped for a time." Should by any mischance the middle meningeal artery be torn, there are several ways of meeting the difficulty. One may leave a silver probe in the foramen spinosum, as Friedrich did, or plug the hole with catgut, or stuff the opening with *iodoform gauze* and allow the wound to heal over it.

The mortality of the operation is still high, and it is not one to be undertaken lightly. Even in cases that end favourably there are a number of undesirable results which not unfrequently follow. Among these may be mentioned: temporary paralysis of the muscles supplied by the motor-oculi and abducens nerves, insensibility of the cornea and permanent decrease in the secretion of tears leading to more or less severe keratitis; atrophy of the optic nerve has even resulted, and sometimes "there is an unusual limitation of the extent to which the mouth can be opened, as a result of excessive contraction of the scar which is necessarily produced in the substance of the Masseter and temporal muscles." As a matter of course the division of the muscles of mastication, which is unavoidable in the temporal operation, leads to unilateral loss of function," but this is soon compensated for by the other side of the mouth.

CRANIAL DEPRESSION IN INFANTS.

Depressions of the skull in newborn infants are not so very uncommon, but very little attention has been bestowed on the subject. A fair proportion of them, if left alone, get all right, but some remain and produce serious symptoms. They are generally of one of two forms, either furrow-shaped, or spoon-shaped; the latter being the more serious. It is generally

supposed that forceps are responsible for these accidents, but this is more than doubtful. Furrow-shaped depressions may occasionally be caused, and even these are mostly due to pressure of the head against some part of the parturient canal and not to the forceps, but spoon-shaped depressions, which almost always occur in the upper part of the vault, can scarcely be due to instrumental delivery. As to the symptoms of this affection, when the depression remains permanent. In some cases there are no disturbances, although occasionally there may be minor nervous storms. "In another class of cases, although the child lives for days, weeks, or even months, there are marked local and general disturbances. Such cases usually terminate fatally. The symptoms vary. In some there are nervous phenomena, such as twitchings, convulsions, or paralysis, when there is no difficulty in attributing them to the depressions. In other cases, however, nervous symptoms are absent, or only appear towards the end, and there are only general symptoms—fretfulness, disinclination to take the breast, etc. There is yet another group of cases in which the child is born dead, or so deeply asphyxiated that if the indentation is not immediately relieved death results. The condition is fully dealt with and cases given by Dr. J. M. Munro Kerr in the *B. M. J.* for January 19th. Two methods of procedure are applicable in dealing with these cases. In perhaps the majority of cases no operative interference is needed, firm antero-posterior compression of the head sufficing to cause the depressed bone to spring out, when all symptoms are rapidly relieved. Some cases that resist this treatment will yield to another method of compression, as in a case related by the author. "When the head was grasped obliquely, applying one hand over the frontal bone to the right and the other over the occipital to the left, with firm compression, the indentation gradually

disappeared." When these methods fail recourse must be had to surgical measures, the simplest of which is the one advocated by Boissard. An incision is made through the scalp over the coronal suture and a smaller one through the suture itself; a sound is then passed under the skull between it and the dura mater and the depressed bone raised by pressure from within. In one or two published cases it was found that whilst the bone could be easily elevated it could not be retained so, but speedily went back to its depressed position. In these cases the depressed area of bone was removed, the pericranium being raised with the scalp and replaced with it, the dura mater being kept intact.

EFFUSION INTO KNEE JOINTS IN CONNECTION WITH MENSTRUATION.

In a paper in the *Lancet* for February 23rd, Mr. W. H. Bennett calls attention to this little known, though not uncommon, malady. It occurs mostly at puberty and the time of the menopause.

Both knees are usually involved, though the right more so than the left. The effusion is perfectly painless and comes on insiduously. Some injury, slight in character, generally calls attention to the condition and is blamed as the cause, though it has nothing to do with the condition which has been in existence, though unnoticed for some time. "Traumatic synovitis is naturally diagnosed and, being apparently very chronic and the subjects being delicate, is sometimes mistaken for tuberculosis. An error in diagnosis can usually be avoided by noticing the character of the swelling, the existence of effusion on both sides (that on the uninjured side being painless and without heat) and the coincidence of marked menstrual or uterine trouble." Prognosis is good if the underlying condition can be removed.

ENLARGEMENT OF THE INGUINAL GLANDS IN VISCERAL CANCER.

It is a strange, but true, fact, the well known anatomical distribution of the lymph channels notwithstanding, that enlargement of the supra-clavicular glands has occupied more attention clinically than those of the inguinal region in cancer of the viscera, and yet such inguinal enlargement may be the only external sign of a visceral malignant growth. It has, moreover, been more than once insisted on that, in abdominal cancer, the inguinal glands show changes before the supra-clavicular ones, and indeed what anatomist would have expected any otherwise? "Of the various parts of alimentary canal, inguinal enlargement is most often observed in cancer of the stomach. It has been found in primary cancer of the liver, gall, bladder, and pancreas, but not of the kidney, spleen or suprarenal capsule. Inguinal enlargement may again be associated with cancer of the œsophagus or lung, but not, so far as is known, with cancer of the pleura or heart." The greater the malignancy of the growth, the earlier is the involvement of the glands, and "when the enlargement of the glands is the first, or an early sign of cancer, life will last only a few months."

THE INDICATION OF THORACIC PAIN.

Various forms of thoracic pain are well known clinically, e.g., severe pain between the shoulders in certain forms of indigestion, the shoulder tip pain of liver trouble, etc., but "in grave cases in which the entire peritoneum is affected and the symptoms are puzzling, enquiry as to thoracic pain may yield information of great value." Such information may determine the site of an exploratory incision. "In certain cases of perforation of the stomach the pain may be referred to either shoulder, the interscapular region, or a little

lower, immediately over the vertebral column. It is distinct from the severe pain situated at the umbilicus, in the lower abdomen or in the iliac fossæ. Enquiry is all the more necessary, as the severity of the abdominal pain masks any thoracic pain. Such thoracic pain may also suggest cholecystitis, but pain over the lower dorsal region of the spine is nearly always connected with ulcer of the stomach. In such cases a supra-umbilical incision is required."

ETHER COMPRESSES IN STRANGULATED HERNIA.

An ice bag, *morphia*, and elevation of the foot of the bed is an old and successful aid in reducing herniæ, which has probably been employed by all of us. Dr. C. Fiessinger now proposes the employment of other compresses for the same purpose. He very rightly says: "Ice is not always at hand, and *ether* appears to be far more powerful because of the greater cold produced—several degrees below zero. Ice often, *ether* seldom fails; *ether* ought to be used during the first thirty-six hours; after that time there is danger of the bowel

being gangrenous." In most cases from ten to fifteen minutes is sufficiently long to secure reduction, but in a few severe cases the compresses may have to be kept on much longer; in one case the application was kept up for two hours and nine ounces of *ether* used.

STERILISING THE CLINICAL THERMOMETER.

Dr. W. H. Dyer makes the following useful suggestion for the sterilisation of clinical thermometers: "A few drops of a forty per cent. solution of *formaldehyde* on the cotton in the bottom of the thermometer case afford a most effective and simple method of sterilising the thermometer. The gas is steadily liberated from the solution *formaldehyde*, and the thermometer case, being nearly air tight, the escape of the gas and evaporation of the liquid is almost nil. In this way the thermometer is constantly subjected to the germicidal action of the gas. Before placing it in a patient's mouth it should be rinsed in water and wiped dry, as *formaldehyde* is irritating to mucous membrane.

Gynecology and Obstetrics.

Under the charge of Elizabeth Reifsnyder, M.D.

In the *American Journal of Obstetrics* for February of this year is recorded the paper of Dr. Malcom McLean, as read before the New York Obstetrical Society on "A Plea for the Recognition of some of the Factors in the Mechanism of Labor."

First, he observed, that in parturition performed under normal conditions, there was a marked change in all structures involved in the function. A softening and relaxation which should be a precursor to the mechanical stretching the tissues must undergo. Every labor which is precipitated without the change in-

volves difficulties and dangers which would otherwise be absent. The changes in the presenting head of the child should receive some attention, as the relative size of the head will depend somewhat upon the alteration in its shape.

An arrested head, with increasing scalp tumor, must not be mistaken for the moving head itself. The presence of the liquor amnii is of great importance through the whole first stage, and should be preserved, if possible, until dilatation is complete. When dilatation is accomplished, and the membranes draw flat and stiff

across the uterine mouth with every pain, instead of bag-like to the point of rupture, we may with propriety assist by rupturing the sac.

Uterine contractions are of two kinds: first, the mild, insensible, tonic contraction which adjusts the organ to its contents; and, second, the intermittent, rhythmic contraction which operates in dilating and emptying the organ. All excitement, mental or physical, which interferes with regular contractions, puts so much difficulty in the way.

The impropriety of using ergot for stimulating a laboring uterus will be apparent if we remember that this drug causes tonic contraction to take the place of rhythmic contraction or relaxation. The obstetric canal should be unobstructed by bladder or rectum, hence the importance of emptying these before the engagement of the child.

In all operations with the hand *in utero* properly performed, the manipulations should be done within the amniotic sac, and then, when the placenta and membranes shall have been expelled, any contaminating matter introduced by the hand will have been carried away completely without having come in contact with the vulnerable uterine structure.

The expulsion of the placenta should be secured before the tonic uterine contraction sets in and such attention given the patient as will secure firm closure of the uterine wall.

If the labor has been properly conducted, intrauterine washes or applications are not desirable. The mouths of sinuses are naturally plugged with sterile blood clots, and these should not be disturbed.

Chloroform should not be given to the surgical degree of anesthesia except for instrumental or other severe operations. It should not be given on delivery by the breech after the head has crossed the perineum, for the voluntary accessory effort should be called upon from this time until labor is ended.

TREATMENT OF APPARENT DEATH OF THE NEWBORN.

From the Brief of Current Literature in the *American Journal of Obstetrics* for January, 1901, we take the following:—

The rules observed by Schultze are:

1. If the child is reddish blue, he leaves the cord uncut, wipes out the mouth and excites cutaneous reflexes. If there is no immediate response, he cuts the cord and plunges the child for an instant into a cold then a hot bath, repeating until it cries vigorously.
2. If the child is pale and flaccid he cuts the cord at once, wipes the pharynx and performs artificial respiration, by Sylvester's method or his own, with occasional use of the hot bath. If respiration remains superficial, the iced bath is also used.

Other methods noted in this same article are aspiration of mucus by tube, mouth to mouth insufflation, followed by artificial respiration by pressure upon the chest and the abdomen.

Mouth to mouth insufflation is opposed by some owing to the danger of rupture of the lungs, tuberculosis, and distension of the stomach. An instrument has been devised, a sort of intubation apparatus, for which is claimed it allows easy aspiration of mucus and permits the entrance of only a limited quantity of air into the lungs, avoiding the danger of rupturing the walls of the air vesicles.

SUPPURATIVE MASTITIS IN THE NEWBORN.

The mammary enlargement and inflammation which are not infrequently encountered in newborn children of both sexes are phenomena as yet not satisfactorily explained. Just why there should occur such glandular activity shortly after birth is not known, but that it may exist

and even advance to actual suppuration, as in an instance recently reported by Marvel (*Annals of Gyn. and Ped.*, April, 1901), is a well-recognized fact. As has been suggested, there may be some obscure relationship between the occurrence and certain metabolic changes taking place in the umbilical stump. It may be irritative in character from reflex excitation arising at this point. The theory of direct traumatism of the mammary gland is not proved and cannot be accepted. There is no substantial evidence in its support. It is true, however, that the suppurative form of the disease is traumatic in origin, and is due to the mal-directed efforts of nurses and midwives to squeeze out the offending discharge. The practical point that is suggested by the occurrence of infantile mammitis, is the necessity of careful handling of the gland and the avoidance of any attempt at evacuation of the fluid. The absence of a thick pad of pectoral muscle renders the spontaneous rupture of the pus posteriorly into the pleural sac by no means improbable; hence emollient and absorbent applications should constitute the primary treatment, with early incision, should pus develop. Above all, should vigorous manipulation of the inflamed organ be avoided in the primary stage of the disease.—*Philadelphia Medical Journal*, April 27th, 1901.

THE ALUM ENEMA IN THE AFTER
TREATMENT OF ABDOMINAL
OPERATIONS.

The Chinese are yet a little slow about submitting to the opening of the abdomen. It is not that the patients object, so much as it is the friends. Still there are enough cases to warrant one's considering the article of Virgil A. Horden, of Atlanta, Ga., in the *American Journal of Obstetrics* for June of this year. Not only does he find it useful in abdominal surgery, but "after minor operations in

patients who cannot return a cathartic taken into the stomach, or when cathartics, though retained, fail to act."

As to abdominal surgery, Dr. Horden says: "There is one complication which has not kept pace with the general improvement and which claims nearly as large a percentage of victims to-day as it did ten or fifteen years ago. I refer to intestinal paresis." One does not need to have done many operations to realize the above fact, and "it follows the simplest as well as the gravest operations, and when once it has become established, the prognosis, under accepted methods of treatment, is in the highest degree unfavorable."

Dr. Dudley's description of such cases is quoted, and part of it is as follows: "The anxious face; the drawn expression; the progressively rising temperature; the nausea, at first attributed to the anesthesia, then as this subsides, the vomiting of sepsis which takes its place; the frequent regurgitation of bile mixed with blood and mucus, and growing darker and darker; the gradual failure of the pulse, first weak, then running, then thready to the vanishing point; the parietic and distended bowels which refuse to act; the rapid respiration; the cold extremities; the staring eyes; the wide nostrils, and finally the inevitable collapse." "Treatment is utterly useless. The first effort should be directed to the movement of the bowels."

And now as to the part that the alum enema plays and how is it to be given, to quote further from Dr. Horden's article, after he had exhausted all known remedies: "I directed the nurse to prepare a solution of powdered alum in a quart of warm water and to inject it into the rectum. In about ten minutes a large volume of gas was expelled, and the patient was correspondingly relieved. In an hour the enema was repeated, with similar result. From that time on the gas was expelled, at intervals

spontaneously; the pulse increased in strength and the temperature fell rapidly."

Dr. Horden has used the alum enema "in hundreds of cases and always with good results. It usually causes expulsion of gas in from five to fifteen minutes;" longer time may be required. "Sometimes necessary to repeat the injection before it will act. This can be done with perfect safety. The injection may also be repeated as often as the gas accumulates, for there may be a reaccumulation."

There may be pain, but it is not severe.

The solution is injected in the same manner as the ordinary enema—not necessary to carry high up in the colon. As to the advantages claimed, they are as follows: Promptness and certainty of its action, in which all other remedies frequently fail, and in which such failure involves the death of the patient. It is, as Dr. Horden claims, "a life-saving measure."

The China Medical Missionary Journal.

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Editorial.

All communications concerning the Editorial Department of the *China Medical Missionary Journal*, should be addressed to Dr. JAMES BOYD NEAL, Chinanfu, Chefoo. All business communications and subscriptions should be sent to Presbyterian Mission Press, 18 Peking Road, Shanghai.

DR. JOHN G. KERR, LL.D.

Our hearts are saddened as this number of the JOURNAL goes to press by the news of the death of Dr. Kerr, in Canton, on August 10th, of dysentery. Dr. Kerr has been for so many years the Nestor of the profession in China—his service here having extended over nearly half a century—that all those who have met him or have heard of his fame (and who has not?) will feel that one of the ancient landmarks has been removed, and that China and medical missionary work here are not quite the same with dear old Dr. Kerr gone.

Coming to China in 1854 he was engaged in active practice for over forty years, retiring only a few years ago from active participation in the work of the Canton hospital to devote his remaining years to the care of the "Refuge for the Insane," which he established in Canton and in which he was deeply interested. Well does the writer remember the pleading of the venerable doctor, before the Foreign Mission's Committee of the General Assembly of his Church in 1893, for liberty to raise funds in America for the institution which he had so much at heart, and when he was refused such permission, rather than abandon a scheme which he felt was so much needed in China, he began his work for the insane in a small way with the help of funds which came to him without any public appeal to individuals or churches at home. Much as we may admire the disinterestedness and pure philanthropy which prompted Dr. Kerr to enter upon this work for the insane, there can be no doubt that his fame will rest upon the noble work which for forty years he did in the Canton hospital, an institution which under Dr. Kerr's care in the past, and Dr. Swan's efficient management in the present, has grown into a position of marked

preeminence in China, doing the greatest amount of successful surgical work of all the hospitals in the empire. Dr. Kerr's fame as a surgeon was very widespread, not only in this country but abroad. It was said some years ago that only one surgeon in the world surpassed him in the number of operations for stone in the bladder. It was in this class of cases that Dr. Kerr achieved his most notable success and won the highest fame, though his operating was by no means confined to this specialty alone. The name of no other surgeon in China shines with quite the lustre of Dr. Kerr's, and so when the China Medical Missionary Association was organized fifteen years ago, he was by general consent made the first president of the Association. His interest in the Association and in the JOURNAL never flagged, but he was as ready in recent years to do his part, so far as his strength permitted, as any of the younger members.

Dr. Kerr was not only the Nestor of the profession in the line of surgical practice, he was also a leader in the teaching of medicine and the preparation of medical books. Over one hundred young men and women have gone out from the Canton hospital trained in Western medicine under Dr. Kerr, while perhaps a score of books have been issued in Chinese for use in such classes. These books, while varying much in the quality of the work, have been eminently useful, in fact have been the only books available in many branches. Modest and unassuming in his manner, a noble Christian, and a faithful physician through nearly half a century of grand service in China, Dr. Kerr's memory will be a precious legacy to the China Medical Missionary Association and an inspiration throughout our lives to us younger men, who should be the stronger to bear the heat and burden of the day for the example he has left us.

MEDICAL EDUCATION.

It is very desirable that there should be a full and frank discussion in the pages of the JOURNAL of the two schemes for medical education presented to the members of the Association in the July issue; one emanating from the medical missionaries who were in Shanghai last winter; the other coming from Hankow. The two schemes differ radically, the one advocating the establishment of a well-equipped *Central Medical School*, to be located in Nanking (or some other center in the Yangtze Valley); the other suggesting the appointment of a *Medical Examining Committee*, whose duties shall consist in examining

all candidates (of twenty-three years or over, who have studied six years) who may present themselves, and in issuing diplomas to those who successfully pass the examinations.

There are grave difficulties to be met and overcome in the carrying out of either plan. In the case of a central school the principal trouble will be to raise funds for an adequate endowment and to find students who are able and willing to pay their way to go far from home to obtain an education in medicine; while in the matter of a *Board of Examiners* it will not be an easy matter to find the requisite number of men who can spare the time to go to various centers to conduct the examinations, nor to raise the funds necessary to pay their expenses, which would be considerable, nor will it be easy to persuade our students to pay \$10 for each examination.

Dr. Hodge, the president of our Association, suggests the formation of a committee, to which shall be submitted these two schemes and all suggestions in regard to the same, such committee to meet in some central place and decide upon some method of action. Such a plan seems eminently wise, provided the necessary funds can be secured, and it is to be hoped may be followed out. Let those who are interested in the matter write to Dr. Hodge in Hankow, giving him their views on the matter. Let us also have a full and free discussion of the subject in the pages of the JOURNAL.

Would it not be well to make a change in the Constitution of our Association in regard to the term of office of those elected to the various posts? Should not the term of office be four years (or at least three) instead of two? In this land of magnificent distances and slow communications our president, for instance, scarcely receives notice of his election and gets comfortably seated in his chair, with his address to the Association sent to the JOURNAL, before it comes time to think of his successor. With such a system there is no adequate time to inaugurate and carry out policies looking to the improvement of the Association, nor for perfecting of schemes which intimately concern the welfare of the whole medical missionary body in China. Take for instance the proposals which are now before the Association in regard to the education of our medical students. Our president stands ready to do all in his power to further a wise decision as to what should be done in the matter, but by the time the discussion has progressed in the JOURNAL for some time, a committee has been appointed, and has had time to meet and make up its report, there is little reason to hope that Dr. Hodge

will still be in office to help carry out the suggestions of the committee. Would it not be well to allow the president, especially as he is ineligible for reelection, sufficient time in which to accomplish something for the Association while in office?

In the German port of Tsingtau, Southern Shantung, which is being rapidly improved by our German cousins, the metric system is in general use. During his attendance upon the annual meeting of his Mission in that port, the writer has had some opportunity to note the working of the system, and is more than ever convinced of the desirability of discarding our present clumsy and unscientific system of weights and measures and adopting the beautifully simple system of the French. In the first number of the JOURNAL, issued under the present editor's care, the adoption of the metric system in our hospitals and dispensaries was advocated, but so far only one member of the Association has expressed himself in favor of such a change. Nevertheless it is to be hoped there are many more who would be glad to see such an improvement started in China, and who would be glad to assist, as far as it is possible for them to do so, by teaching their assistants to use the metric system in the daily dispensing. It no doubt will be difficult for a time to accustom ourselves to using a new system, but I am convinced that the advantages to be gained will more than compensate for the trouble involved. Will not those who would favor such a reform drop a line to the JOURNAL for publication?

The editor would beg contributors and correspondents not to use Chinese Romanized expressions in their writing without giving the equivalent in English. In most cases it is possible for the editor to supply the necessary English rendering before sending it to the printer, but in other instances it is impossible to know what is meant, and in such cases there seems no alternative but to cut the passage out in which the unintelligible expression occurs.

Another favor the editor would beg from contributors and correspondents is that they would write on only one side of the paper and that they would always write "and" not "&." In every case it is necessary to go over all manuscript before allowing the printer to begin setting it up, and change all "&s" to "ands," and as most contributors use the abbreviated form it makes an otherwise neat looking manuscript appear rather slovenly.

Hospital Reports.

The only Report of hospital work which has reached the JOURNAL since the last issue is that of the ALICE MEMORIAL AND NETHERSOLE HOSPITALS in Hongkong, under the care of the London Missionary Society. From this report the following quotations are taken:—

“The in-patient and out-patient work has been well maintained during the year; both hospitals showing an increase in the number of patients treated.

It is the custom of the directors of the London Missionary Society to review its work every ten years, and this year the directors have under review the years 1891-1900 inclusive. The Hongkong hospitals during those years have treated 7,177 in-patients and 97,838 out-patients. The most noteworthy event has been that the Alice Memorial Hospital, founded in 1887, was in 1893 supplemented by the Nethersole Hospital (the gift of W. H. Davis, Esq.), in the wards of which women and children are treated without the proximity of male patients, a matter of no little moment in China. Since the opening of the Nethersole Hospital obstetric cases have been treated. In all forty-two obstetric cases have been admitted to Nethersole Hospital, beginning with one in 1894 and rising to seventeen in 1900. From the nature of most of the cases there is little doubt that if they had been under Western treatment from the beginning of labour much needless loss of life would have been averted. At present there is only one very small room available for these cases, but this year we have asked the directors of the London Missionary Society to grant a site immediately behind the Nethersole for a building to be special-

ly set apart for midwifery. Already several ladies in Hongkong have kindly taken an interest in this scheme, and we will be glad to receive help in thus endeavouring to extend to Chinese women the privileges enjoyed by even the poorest women in London. The teaching of the truths of Christianity has been carried on systematically throughout the year.

The Out-patient Department.

The number of cases, including 111 vaccinations and 535 dental patients, has been:—

New cases	12,193
Return visits	5,968

Making a total of 18,161

In the out-patient room, ‘First come, first served,’ is the rule; a series of numbered bamboo slips handed to the patients as they enter, securing that no preference shall be given to either race or religion. Before the consultant for the day arrives, all new cases are registered and provided with prescription papers; and on the arrival of the medical officer on duty he is assisted by three students, who act as interpreter, clerk, and dresser respectively.

Having passed under due examination, the large majority of the patients either carry their papers to the dispensary, where three students are on duty, and there receive all needed medicines free of charge, or enter a small room for surgical purposes, adjoining the consulting room, where they are attended to as their cases may demand. Such patients as have need of hospital treatment are passed directly to the wards, in the Alice Memorial Hospital or the Nethersole Hospital, as may be desirable.

The In-patient Department.

Admission to the wards is usually through the out-patient consulting room, but cases of accident and acute disease, and patients bearing notes of introduction from subscribers to the funds, are admitted to either hospital at all hours of the day and night. No charge is made for medicines, clothing during residence, bedding, attendance, etc., and only a small proportion of the patients are able to pay for their food (ten cents per day).

In the Alice Memorial Hospital men only are received as in-patients, and the three wards—medical, surgical, and ophthalmic—have accommodation for fifty-three beds. In the Nethersole Hospital there are three wards for women and children with an aggregate of thirty-five beds.

The work done in the in-patient department may be thus tabulated:—

	A.M.H.	N.H.
In-patients remaining in hospital on 1st January, 1900	27	23
In-patients admitted to hospital during the year 1900	465	299
Total number treated as in-patients	492	322

Of these there were:—

Discharged cured ...	295	189
Discharged relieved	125	65
Discharged on other grounds	21	18
Died in hospital	20	24
	<u>461</u>	<u>296</u>
In-patients remaining in hospital on 1st January, 1901	31	26

Operations.

116 operations, most under *chloroform* or *cocaine*, were performed in the two hospitals during 1900, with results as under:—

Cured	88
Improved	24
Died	4

In these figures no account is taken of the dental operations, nor of a very large number of minor surgical operations, such as abscesses, reduction of simple dislocations and of fractured bones, removal of nasal polypi and other small tumours, etc., performed daily in the out-patient department by the visiting medical officers, the house surgeons, and the senior students."

Twenty-three students have been under instruction during the year.



Medical Discussions in Shanghai.

The following reports of discussions in Shanghai during last winter, kindly sent in by the secretaries, Drs. Anderson and Judd, though somewhat late, may be of interest to our readers:—

DISCUSSION THAT FOLLOWED THE READING OF DR. POLK'S PAPER UPON "WOMEN'S MEDICAL WORK."

This paper was reported in the CHINA MEDICAL MISSIONARY JOURNAL of April, 1901, as read before the Shanghai Medical Missionary Association in January last. After Dr. Polk had read her paper, discussion was invited by the chairman, Dr. O. L. Kilborn.

Mr. WM. PRUEN, L.R.C.P. and S., said he found in his native practice that a larger percentage of women called for his assistance for burns and scalds than for anything else. Referring to what Dr. Polk had said about midwifery cases he reported that there is a readiness in the province of Kwei-cheo to call in the foreign physician in labour cases.

Mr. H. W. BOONE, M.D., desired to know how the gospel was received by women.

Miss M. H. POLK, M.D., in reply, said she had been only four years in China, and could not understand all that the patients said, but remembered one woman who requested the mandarin to set free the *ricksha* coolie who had run her down, because the gospel had taught her to forgive.

Mrs. R. GIFFORD KILBORN, M.D., said the women's hospitals in Western China were as well equipped as the men's, and that in Szechwan free access was had to the rich women. There is a large field for married lady doctors.

Mr. JOHN A. ANDERSON, M.D., thought different districts of China differed greatly. In western Yunnan he had ready access to homes of the rich, and he attended numbers of

wealthy ladies in the Yaméns and private houses; whereas in T'ai-chow, where he is now labouring, there are only a few calls to such cases. Referring to what had been said in the paper about patients bringing their friends to the hospital with them, he said he rather liked his patients to bring friends or servants with them. It helped to keep the patients from being homesick, and it brought more people under the influence of the gospel. He found superstition a real hindrance in the work. Two cases were mentioned to show the transforming power of the gospel in the lives of Chinese women.

Mr. W. E. MACKLIN, M.D.: "Luck" has great influence amongst the Chinese. Nanking native doctors have a saying, "I have had ten years of luck, come early." If the Chinese think a doctor has luck, they will run to him, but they believe the luck will sometimes leave him, and if they think it has left, they go elsewhere. Sometimes we have a run of success, and at other times a run of failure. It is very trying to have the latter, especially if it comes at the start of one's work and before a reputation has been gained. I operate on all cases. As a rule only difficult labor cases come to us.

Mr. W. R. FARIES, M.D., also found that the Chinese looked closely for luck, and if the doctor's luck in any particular branch seemed gone they would leave him for a time till the luck returned. He thought the late Dr. Mary Brown, of Wei-hsien, had quite as much access to the rich women as he had to the rich men.

Mr. O. L. KILBORN, M.D., thought the working position of the married

layd physician quite as good as that of the unmarried. What is lost in one direction is made up in another.

Miss MARGARET H. POLK, M.D., in replying to some of the criticisms upon her paper, said that in comparing the women's hospitals with the men's, she took into account the question of where the money came from. Much of the money for the men's hospitals came from the Chinese; whereas nearly all for the women's came from home lands. In speaking of access to the rich Chinese women, she was comparing this with the access which the male physicians had to wealthy men; and at Soochow she saw that Dr. Park had access to a larger percentage of rich men than she had to rich women. She still felt it was rather a case of sinking a physician into a nurse when a lady doctor gets married.

Dr. W. R. FARIES, of Wei-hsien, desired to pay a tribute to the late Dr. Mary Brown. She had entrance to all the rich families in Wei-hsien. The Chinese ladies used to invite her to their social parties, and she spent a great amount of time among them. Some of the ladies also accompanied her in her work as she visited patients in her hospital wards. After a time, when the ladies did not believe the gospel, she got discouraged and stopped attending social parties. Often she was called to visit out-patients and frequently would be out all night in all sorts of weather. In this way she exhausted her strength. She trained her own assistants, who were native women; one of them, a widow, being chief assistant and capable of caring for the work in Miss Brown's absence. This assistant was murdered in Shensi. Another is married and doing medical work upon her own responsibility. A third is unmarried and is an assistant in the women's work. Dr. Mary Brown believed that the women patients should pay, and her own medical work was practically self-supporting. Her assistants knew no English.

DISCUSSION THAT FOLLOWED THE READING OF DR. BUTCHART'S PAPER UPON
"HOSPITAL CONSTRUCTION."

The paper was reported in our April JOURNAL.

Dr. H. W. BOONE said: I strongly advise that large buildings be broken up. When there is a bad case, it affects the whole of a building. As regards iron roofs, I know iron roofs thirty years old that are still good and have not required repairs. A doctor from south China reported that iron roofs are apt to rust in the south of China.

Dr. W. E. MACKLIN thought the reception room for seeing patients should be a separate building from the hospital building. The hospital building should have a south exposure and should not be too deep a building. Dark hallways should be avoided. The cottage hospital is the ideal for China—with a large verandah. Have private wards. The shower bath is the most economical bath, using a head for hot and cold water. Some walls are lime-washed, others have hard plaster finish, i.e., plaster of Paris and painted. It can be washed and disinfected. Keep your drug room locked. Use cypress wood for floors. Pitch pine will soon rot. Have ventilation under iron roofs to keep the hospital cool in summer. Some allow smoking, but others forbid it and only allow it on the verandah. No opium smoking allowed.

Dr. JAMES BUTCHART: I should have said in my paper that the roof should project eighteen inches to protect the walls. The best places for an operating room are the N. E. or N. W. corners.

Dr. BABBINGTON showed and explained a fine picture of Dr. Main's Hangchow hospital. The picture was by a native artist.

Votes of thanks were accorded Dr. Butchart for his most valuable paper and to Dr. Hare for his conduct in the chair.

The discussion which followed Dr. Gifford Kilborn's paper on "Chinese Babies" turned largely on the distribution of various diseases in different parts of China.

Rickets is everywhere conspicuous by its absence.

Scarlet fever and diphtheria occur in North and Central China, but are unknown in the south. Drs. Neal and Hare had, however, never seen them in their stations at Chi-nan-fu (Shantung) and Kia-ting (Sichuan). Tuberculous disease seems to affect the joints and glands mostly.

Favus, ringworm, cancrum oris, keratitis, and sloughing cornea, enlarged liver and spleen were also mentioned as being more common than in the homelands. A variety of local Chinese customs were also mentioned—connected specially with confinements and the washing (or want of washing) and dressing of infants.

In the discussion which followed the reading of Dr. Neal's paper on a "Central Medical School" the speakers were practically unanimous on the need and feasibility of such a school.

Nanking was thought the best place for the following reasons:—

It is central, and its language very generally understood.

It has a large population and several hospitals and dispensaries with large attendances.

It has a large missionary community with a good number of med-

ical men who could give help in teaching.

It is reckoned a fairly moral city, and the native work would be some four miles from the foreign community.

The *Chinese language* was considered the best medium of instruction, because teaching in English would preclude a large number from joining.

English-speaking Chinese can usually earn larger salaries in business than in medical work, which would tempt many to forsake their studies for more lucrative posts.

It was suggested that some students sent to Nanking for training would be unwilling to return to their former teachers, but experience has shown that, though this is a real source of risk, in a good proportion of cases a sense of moral obligation has induced them to return, though the position be less lucrative than others.

Dr. Boone had suggested the formation of a central medical school in Nanking, with teaching in the Chinese language, as early as 1890 in the C. M. M. JOURNAL.

Drs. Boone, Butchart, and Judd were appointed a committee to draw up a number of propositions on this subject to be submitted to the next meeting.

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At the two final meetings the propositions submitted by this committee were discussed and revised and finally adopted as published in the July issue.



Correspondence.

To the Editor of the

CHINA MEDICAL MISSIONARY JOURNAL.

DEAR DR. : Our district city 儋州城 (Dam-ciau-tia) has been overrun with plague for the last six months.

Plague in Hainan. The villages between that place and this have become infected to a large degree, and even inland as far as our station here as No-doa we have just passed through a season of it, having twenty or more cases here.

In the district city it has been very fatal. We know also that in some of the villages where the plague was prevalent it became so fatal that whole villages left their homes and came, some to No-doa and some to other villages about here, to get clear of it. In that way our No-doa market became infected.

These cases that have occurred here in the market have been very light ones, with the exception of one case which was very severe, but not fatal. Manson would call the light cases abortive or larval plague (pestis ambulans).

The symptoms were ordinary, but mild in most cases; fever 103° to 104° . The buboes in some cases were small, about the size of a robin's egg and in some nearly as large as one's fist. In some cases they occurred in the locality of the glands and in other cases were irregular, occurring on the squamous portion of the temporal bone, on the anterior surface of the tibia, on the elbow joint, on the shoulder, over the ribs, etc., etc., and in some cases on the breasts. They came in some instances on the feet and ankles first.

Only one of the cases which came under my notice was of the hemor-

rhagic variety—a woman of about thirty-five years, of a respectable family. In her case it came on with high fever and general depression. She told me she was very fearful she would not get well. Her eyes were open too wide and staring, and she seemed to have great pain in her bones. She came out of her dark bed-room and I looked her over. Her face was swollen and her skin dry. Her mother showed me one bubo which was on her right shoulder, over the acromion process of the scapula and partly over the clavicle. It was a very large one, tense and painful and with a great deal of infiltration of the surrounding tissues. I could not find any ecchymotic effusions in this case. The bubo finally broke and bled, and pus flowed from it mixed with the blood. The pus was very thick, like that from a rotten, bad leg sore. It will form a deep peculiar scar, I think. She complained that nothing would stay on her stomach, and vomited food and medicine for two days. Her tongue was swollen and coated. Her pulse full and fast, but I could not see any other change in it or in her heart sounds, which were normal as far as I could see.

After the bubo broke (I intended to lance it, but it ripened sooner than I thought it would) she soon recovered, although the bubo was slow in healing.

When I first went to see her I thought it was a case of fever (malarial intermittent) and treated her accordingly, thinking at the time that she was about to have an abscess along with it. But later when I found that several people in the market were having these peculiar swellings, with fever, I found out

what the true cause of the trouble was, with the help of the natives, I admit, for I had never seen plague, and it did not occur to me that it might be plague until the other cases came to my notice, and in fact until my assistants told me that some of these cases were refugees from our district city, fleeing from there because of it.

The people here say that they are in the habit of examining any dead rats they find, and that if their bodies swell up out of all proportion, they surmise it was plague that killed them. But if the bodies of the dead rats do not swell, that it was not plague that killed them and that in the latter case they need not leave their houses. We had two rats die in the hospital a few days ago. We found them on the floor in the morning and asked the natives about it, and this is what they told us. The worst of the season of plague in this district is over, I think, although four cases are reported in Nam-fong, where we have a dispensary.

They tell me that having it lightly this spring, it is likely to break out again in the fall or next spring, but we will hope for the best.

Respectfully yours,

ERNEST D. VANDERBURGH.

Dr. H. N. Kinnear, of Foochow, writes as follows:—

Iron Wire Snakes. "I am curious to know what experience other workers in China have had with what our Foochow people call the 'Iron Wire Snake.'

A year ago there came to our clinic a boy of nineteen, who reported that when he was eight years' old he was playing out of doors, probably wearing no clothing, when one of these little snakes wrapped itself around his penis at about the middle. It was impossible to get it off for some hours and the resulting ulceration

had left a deep sulcus of cicatricial tissue entirely surrounding the organ and interrupting the urethra. The urethra was of full calibre on both sides of the fistula. He came to us because he was about to marry and wished the imperfection removed, but left again before anything was done for him.

My students fully credited the story of the snake, and told me that they sometimes fasten themselves upon the fingers of men working in gardens, strangulating them until they slough off, that they have also been known to strangle the tails of cattle in the same way. The popular belief seems to be that it is almost impossible to remove them when once wrapped around a part.

The snake is about six inches long, shaped much like a common earth worm, has about the same diameter, a trifle smaller perhaps and darker in color. Have seen a specimen, but have not done any experimenting with my own fingers for the sake of science. Am willing to gain a knowledge of the subject at second hand if any one is ready to impart it."

LONDON MISSION, YO-CHOW, }
HUNAN, May 20th, 1901. }

DEAR MR. EDITOR:

Medical Mission Work in Hunan. I should like the members of our Association to know that medical mission work, on a systematic basis, has at length been started in this city, and so if you can afford me space in the JOURNAL, I send you the following brief account.

I had formerly hoped to open a dispensary in the autumn of last year, but the troubles of the summer forced us to leave Hunan for a time, and so all our plans were upset. Then I hoped to open early in the spring of this year, but here again

I was disappointed, owing to the tardy way in which the workmen made the necessary alterations. I say "alterations" because we are living in Yo-chow in adapted native premises, and the hospital part of the place had also to be adapted very considerably before it was suitable for our purposes.

We have now a small ward for about six beds, operating room, out-patient dressing room, consulting room, and dispensary, besides kitchen, etc., and rooms for assistants.

But though much delayed from one cause or another, we have at last "opened shop." Our first "out-patient day" was last Tuesday. There was no formal opening of any kind. Notices had been put up some days previously to let the people know, so on the Tuesday morning they came to our street-chapel door and applied for tickets. I gave the gate-keeper fifty tickets to give out to them, thinking fifty quite sufficient for a long and hard afternoon's work. The tickets were soon all gone, and then the people sat down and waited in the chapel and listened to the preaching. I began to see them at two o'clock, and then in they came, one after another, in their proper turn, until 6.30 in the evening. We were all thoroughly fatigued at the end of it, for besides the constant pressure of the work, the weather was peculiarly hot and oppressive. You will see from this that the people here are not slow to consult the foreign doctor. All the available tickets were sold (we charge forty cash to each new patient), and how many more we *might* have sold I don't know. But I must stop now. Our hearts are in this work, and I thought it might be of interest to let others know how that medical mission work had been started in yet another of the cities of China.

Very sincerely yours,

ERNEST C. PEAKE, M.B. (Ed.)

CHAO-CHOW-FOO, SWATOW, }
9th August, 1901.

To the Editor of the C. M. M. J.

DEAR SIR: I wish the Hankow brethren had given us their reasons **Medical Examination Scheme.** why they think

it better for the Association to take up such a scheme as their examination one rather than to establish a central medical school. Without their reasons it is somewhat difficult to discuss their proposal. I thought at first the idea was something like this: There are already medical schools giving instruction in Chinese or English at Canton, Shanghai, Nanking, Peking, and perhaps some other centres, and we at Hankow are forming one, so that the great need is not for a central medical school but for a scheme of examinations, so that a definite standard can be set for the whole empire. But this is evidently incorrect, for the Hankow letter expressly says the scheme is for students studying in the various mission hospitals, etc., throughout China. At how many hospitals in China can a good course be given in the subjects of the first, second and third examinations of the Hankow scheme? Practically only where there are two men with competent native assistants, or at places like Hankow or Canton, where a staff of teachers can be formed. It is comparatively easy for most of us to give our men a good clinical training, and this supplemented with the study of suitable text-books would make it easy for many to prepare students for the fourth examination. But how many of us have time to teach at all thoroughly the subjects for the other three and especially to give practical and laboratory courses? This scheme will only be applicable to those hospitals or centres where there is an adequate teaching staff.

The point at issue would seem to be: one central school under the auspices of the Association or a num-

ber of local ones, either denominational or interdenominational. For my part I favour the former. It will be the Association school; the Association will see to it that there is an adequate staff of teachers and that a thorough training is given, and it will set free the time now spent by a number of us teaching and preparing to teach our students.

A central medical school will not by any means solve the problem of medical education in China. In the more remote regions there will be some men who cannot or will not go to the central school, and for them the continuance of some of our hospital courses of study will be necessary. For these students a scheme of study and examinations under the direction of the executive committee of the central school will be advisable, so that there may be a certain standard up to which one could teach, by which one could measure one's students' attainments and which would serve as a stimulus to the men themselves. I have often longed for such a scheme to be instituted. In this prefecture I know that for a good many years to come the majority of would-be-practitioners of medicine will not be able to go far afield for their instruction, and this is doubtless true of many other places, so that in planning for those who can take the higher course let us not forget those who can only take the lower. Although with the exception of chemistry it will rarely be possible to give them laboratory courses, yet five or six years of study in a dispensary or hospital, with ample clinical advantages, will enable us to turn out some very useful men who will be fitted to relieve an enormous amount of human suffering.

Whether we have the central school or not, let us have the two grades of examinations.

Yours very sincerely,

PHILIP B. COUSLAND.

Training of Medical Students. Dr. Main, who has had large experience in training medical students, writes in the following vigorous style from Hangchow under date of 15th June, 1901:—

"I am convinced of the urgent necessity in China of a thoroughly qualified medical mission native agency, and consider no labour lost in trying to produce it. The demand for Western methods of treatment is increasing rapidly every year, and as the skill of medical missionaries and the success of their trained natives become wider known the demand will be still greater. At present we medical missionaries are unable to supply the demand, and we are not likely soon to have medical missionaries out from home in sufficient numbers to do the work, so if natives are not trained the countless sick sufferers must be left to the native quacks to torture and kill. From a humanitarian as well as Christian point of view this work demands *our* attention and the hearty support of every right-minded Christian. The success that has followed those who have passed through our hands abundantly justifies the amount of money and time spent in educating them. We consider the training of natives the most important branch of our work, and we are prepared to face the risk of some of them being led away by the desire to make money, which is likely to happen to those whose spiritual condition is not high and who prefer dollars to the salvation of souls. Those who are really converted are not likely to leave mission work for lucrative posts. More than once tempting salaries have been offered to several of our assistants, three or four times the amount they get from us, and it speaks well for their Christianity that they continue with us in the blessed work of healing the sick and preaching the gospel.

Until a central medical school is established those of us who have been

giving much of our time to the education of natives should continue at it with greater determination than ever."

DEAR SIR: In the July No. of the JOURNAL, two schemes, having reference to medical education, are put before the C. M. M. Association.

1. *A central medical school* (at Nanking or Hankow).

2. *A uniform scheme of examination* for all China.

I wish to submit a few of the reasons why I regard the examination scheme, in one form or another, as the only feasible one.

I. *The greatness of the demand for medical education, makes one central medical school palpably insufficient.*

The demand in China for medical education increases yearly by leaps and bounds. One feels instinctively these days that education is in the air, and that every missionary society is face to face with the educational question in all its branches, as one of the chief factors of the missionary problem of the future.

Some societies have been working at this problem for many years, some for a few years, and what more reasonable than that they should wish to make the medical part of the education of a student fit in with his previous training. High-schools, colleges, universities (different names for the same things) have been started in many of the large centres in China for the education of the youth of the churches, as well as for those outside the Christian church. Now many if not most of these schools teach English; they have been compelled to do so, and most of them teach chemistry, physics, biology and other sciences, and they would naturally wish to see some scheme adopted which would continue the student along the lines on which he had so well begun.

These facts and many others do not fit in with the scheme proposed, viz., that of one teaching centre for all China, but the biggest fact is, what *one* medical school can cope with the not inconsiderable number of those thousands of students in our Mission colleges who want to study medicine? No! *A dozen medical schools* are none too many for a task so great.

II. *The removal of students to a distance from their native place has several serious drawbacks.*

1. *The question of dialect.*

This is too obvious a difficulty to need much comment. What is a Cantonese to do in a Nankin school, or a lad from Foochow or Amoy in a Hankow school?

2. *The question of expense.*

This would hamper all but the rich and those who lived near the centre chosen. The expenses of education will be great enough without the increased expense of long travel.

3. *The removal of the student from moral help of Christian parents and others.*

We all know from personal experience or otherwise how many of the youth of our churches are hedged around by the Christian influence of parents and friends, of godly teachers and missionary pastors and others whom they have come to know and love and who in turn have come to know and love them.

Wrench them from these surroundings, throw them out into a strange city and among strangers, and we can easily foresee the result to not a few. If this can be avoided, many wrecks will be saved. There is a great deal in *sympathy* in saving men, and this would be in many cases lost, not from want of will or good intent on the part of the new teachers but from want of knowledge, gained only after years of acquaintance.

III. *The financial problem in connection with a central medical school presents peculiar difficulties.*

1. *In connection with the foreign staff.*

Several questions arise under this head, such as: Who are to be the teachers? Are they to be those already on the spot? If so, then who is to pay their salaries? Are others to be brought in from other parts of China? Who is to build houses for these?

2. *In regard to school buildings and apparatus.*

Who is to supply these, and who are they to belong to when supplied? Many thousands if not tens of thousands of dollars would be needed to adequately meet these needs. When we consider the difficulties the Association has had over paying for its magazine and the appeal for help of the nomenclature committee, we wonder whether the fact of a school being called the Association school would bring in a flood of funds. We doubt it, but even this would not stagger us, were the object one about which as an association we could be anything like unanimous and enthusiastic. Supposing the funds were raised and money spent in plant, etc., and then other schools arise. Whose shall these things be? I think much dissatisfaction would result and all through the fact that the scheme in its conception is not one that is fitted to meet the need it was intended to supply.

How then shall that need be met?

Counter Proposal: A Uniform Scheme of Examination for all China.

I. A number of medical schools, more or less developed, exist already in certain large centres in China, e.g., Hongkong, Shanghai, Peking, and in a number of other centres. They have apparatus and plant already in hand. Instead therefore of having such schools denominational as most have been in the past, let them be interdenominational or union schools. Let the missionaries and missionary societies of a province or of a large district combine to form one large

central school fed from the colleges and hospitals around. Let them elect a dean and make all arrangements necessary and let the expenses be met by the various societies represented. There ought to be little difficulty in starting quite a number of such schools throughout this vast empire.

II. The question of expense in travel of the students would thus be simplified, also the question of dialects and of breaking with moral and Christian influences already alluded to. Then the financial problems as to salaries of professors, housing of ditto, purchase of apparatus, etc., would all be simplified, and there would not be the danger that there would be in the other scheme of a large section losing interest in the affair and the difficulties consequent thereon. The interest would be more concentrated and more natural and therefore more lasting.

III. When we consider the large amount of clinical material available all over China, the large number of medical missionaries willing and able to teach, the immense gain it is to the medical missionary himself to have to freshen his knowledge to enable him to teach, the fact that many societies have sent out two men to the larger hospitals to enable teaching to be done, the fact also that many of those whom we wish most of all to teach could not possibly leave for distant parts, because required for some part of the day in hospital or dispensary,—we come to the conclusion that it will take many medical schools to meet the real needs of this empire.

IV. A uniform scheme for teaching and examination would be an immense boon to those several institutions throughout the provinces. It would standardise the teaching, it would be a bond of union, a guide to the teacher, and a proof to teacher and taught as

well as to outsiders and to prospective patients or hospitals that the knowledge of the students was such as to entitle them to the respect and confidence of those to whom they might be sent or called. I therefore conclude that it would be manifestly unfair to class any one school as the school of the Association and that the scheme for a uniform examination is the only one that meets the needs of medical missions in China.

THOMAS GILLISON, M.B., C.M.

LONDON MISSION,

HANKOW, 4th September, 1901.

NANKING, July 30th, 1901.

DEAR DOCTOR: From your editorial on "Local Branches of the China Medical

Missionary Association," in the last number of the JOURNAL, it is evident that you were not aware of the fact that we have a local society here in Nanking, first organized September 4th, 1886, and which meets regularly every month, except during July and August. It remained dormant for a few years, but during the first few years of its organization and during the past four years we have had regular meetings and found them very helpful. This past winter and spring Nanking had nine foreign medical missionaries resident here.

Yours very truly,

ROBERT C. BEEBE.

Dr. Mills who, it will be remembered, was burned out at Tsao-shih, near Hankow, last year, an account of his experiences having appeared in the JOURNAL, writes us as follows, under date of 25th May, 1901:—

"You will be glad to hear that we are all peaceful here; all the growing generations are being taught to drop the 洋人 for other more polite designations, and even dogs are losing

the deadly interest they once took in our lower extremities.

Our hospital has been open about one and a half months. I saw about 1,000 patients the first month and have a decent number of operations. The chapels get well filled with attentive listeners and our school has over twenty boys.

The compensation has been sent to Hankow, but has not got to our pockets yet. The old man in whose house I was sheltered has been presented by the county magistrate with a huge board, which took eight men to carry and which had on in black letters on a gilt background 善蔭一鄉, 'His virtue protects a whole country side.' It was escorted by numerous umbrellas, dogs, and children, and much exploding of gunpowder. The board is hung up over his front door; the rest of the population are rather sore after having to pay up the indemnity; the chief offender, a cart shop man, was fined over 250 strings, but was granted a degree to make him grateful. The little magistrate who refused me help and the gentleman who was responsible for the peace on that day both died before December; and as an additional feature, the gable end of the house fell in and killed four looters the day after the fire; so everyone thinks the hand of God was very clear in it.

My colleague has suddenly taken to natural history; he found a big scorpion in his study and has read of several poisonous varieties since; the result is he has a nervous time toward dusky eve.

We are surrounded by medicine shops about here, and they pay three cash each for these beasts. The origin of scorpions is said to be that one of these itinerant quacks who rides a camel had a live scorpion in his basket, and when he woke up one morning in an inn on the street the scorpion had vanished. This place seems as if it could not produce anything bad; it's all imported; even the B-b which is in tremendous evi-

dence just now, is said to have been brought from Hankow (probably the steamers)."

Dr. Gillespie, who spent the winter in Chefoo, writes from Newchwang, Manchuria, under date of 6th July: "It was decided by the committee that Mrs. Gillespie and I should stay here and continue our study of Chinese for the summer. We both passed the first examination (one year) on 22nd April, the day after we arrived here.

Then I took charge of the port practice for a month while Dr. Daly went to Shanghai to meet his wife, who went home to Ireland last year when the troubles broke out. We have now been back at Chinese again for six weeks.

Our committee meets again (D. V.) in November, when I shall probably be appointed to begin medical work somewhere.

Nearly all our mission stations are again occupied by missionaries, and two of the Scotch missionaries have taken their wives with them."

Dr. Cousland writes from Swatow under date of August 8th:—

"We are all up at our hill cottage and enjoying the coolness. My wife and the children have been up for some time and are looking well. If I am not too sleepy and lazy I shall try some translation. I have found it impossible to get time at C. C.-foo for our committee work. The hospital work was heavier than usual, and there were many other branches of work to look after. I have lost about ten pounds in weight since I left Shanghai.

Everything quite peaceful again. We read of the Boxers giving more trouble in some districts. I don't know that I have much news for the JOURNAL. A patient has built a chapel in his town and given us the use of it as long as we like. I went down to open it the last Sunday of July,

and there was a capital attendance. At Swatow the old hospital is about to be pulled down and two new ones built, one for women and one for men. They will accommodate over 300 in-patients. Doctors in charge: Alexander Lyall, John Dalziel, and Tina Alexander."

Dr. Lewis writes from Peking that he has hopes of being sent home to America in the autumn with the regiment to which he is attached. If so he will resign from the army while there and return later to take charge of the medical work of the Presbyterian Mission in Pao-ting-fu. The Mission has been presented with a most desirable site outside the walls of Pao-ting by the merchants of the city.

Dr. Judd, of Tao-cheo-fu, 400 *li* from Kiukiang, writes:—

"I am alone at present in a rented house, hoping to begin to build soon. My brother who was to work here too was wired for and left here last night for Shan-si to take the place of those who were removed last year. We had only been together five days, but feel it the Lord's will as far as we know it."

Dr. Smyth, of Chou-ping, Shantung, writes from Shanghai, under date of 31st July, of his departure for England, where he will remain until the early spring of 1902. Drs. Watson and Paterson, of the same Mission (English Baptist), are also at home on furlough.

Dr. Maxwell writes from Chang-poo to say that his station is in Fokien, not in Kwangtung, as stated in the July issue under "Hospital Reports;" and also to say that the medical work in Chang-poo is under the joint care of Dr. Howie and himself, not, as would seem to be indicated by the language used in the last issue, under Dr. Maxwell alone.

BIRTH.

At Macao, July 16th, 1901, the wife of W. H. DOBSON, M.D., A. P. M., Canton, of a daughter, Winifred.

MARRIAGE.

At Shanghai, August 17th, JOHN W. BRADLEY, M.D., to Miss MAMIE B. McCOLLUM, S. P. M., Suchien.

DEATHS.

At Wuchang, July 25th, WINIFRED BATEMAN, wife of P. L. McAll, M.D., L. M. S., Hankow.

At Canton, August 15th, J. G. KERR, M.D., A. P. M. Forty-seven years a missionary.

DEPARTURE.

From Shanghai, July 20th, A. M. WESTWATER, M.D., U. F. C. S. M., for Scotland.

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